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VC-2MC-M/C 150/340

VC-3MC-M/C 280

VC-4MC-M/C 80/180

2, 3 & 4 MEGAPIXELS RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER,  
HIGH-SPEED CMOS DIGITAL CAMERA



VC Series is high-resolution CMOS digital cameras for machine vision. Equipped with the latest global shutter CMOS image sensor technology available today, these cameras offer not only high-speed image processing capabilities but also precise exposure control. Furthermore, its outstanding noise reduction technology and a wide range of camera resolutions make these cameras ideal for use in various industrial inspection and scientific research applications.

**VIEWORKS**

## VC-2MC / VC-3MC / VC-4MC

2, 3 & 4 MEGAPIXELS RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER, HIGH-SPEED CMOS DIGITAL CAMERA

### Main Features

- \* 2M/3M/4M Resolutions
- \* High-Speed Progressive Scan CMOS Image Sensor
- \* Global Shutter CMOS Technology
- \* Full Camera Link Interface with 8 bit or 10 bit Data Output
- \* Excellent Noise Reduction
- \* Field Upgradable Firmware
- \* Pixel Defect Correction

### Applications

- \* Machine Vision Inspection
- \* Research and Scientific Imaging
- \* Microscopy and Metrology

### Specifications

Model	VC-2MC-M/C 150	VC-2MC-M/C 340	VC-3MC-M/C 280	VC-4MC-M/C 80	VC-4MC-M/C 180
Resolution (H × V)	2048 × 1088		1696 × 1710	2048 × 2048	
Sensor	CMOSIS CMV 2000		On Semiconductor LUPA 3000	CMOSIS CMV 4000	
Sensor Size (Optical Format)	11.26 mm × 5.98 mm (2/3")		13.57 mm × 13.68 mm (1")	11.26 mm × 11.26 mm (1")	
Sensor Type	High Speed CMOS Image Sensor				
Pixel Size	5.5 μm × 5.5 μm		8.0 μm × 8.0 μm	5.5 μm × 5.5 μm	
Interface	Camera Link				
Max. Frame Rate	2 Tap: 74.4 fps		2 Tap: N/A	2 Tap: 39.6 fps	
	4 Tap: 148.5 fps		4 Tap: N/A	4 Tap: 78.9 fps	
	8 Tap: N/A	8 Tap: 295.4 fps	8 Tap: 227 fps	8 Tap: N/A	8 Tap: 157.1 fps
	10 Tap: N/A	10 Tap: 337.6 fps	10 Tap: 284 fps	10 Tap: N/A	10 Tap: 179.5 fps
Transfer Time	2 Tap: 13.44 ms		2 Tap: N/A	2 Tap: 25.3 ms	
	4 Tap: 6.73 ms		4 Tap: N/A	4 Tap: 12.67 ms	
	8 Tap: N/A	8 Tap: 3.38 ms	8 Tap: 4.41 ms	8 Tap: N/A	8 Tap: 6.37 ms
	10 Tap: N/A	10 Tap: 2.96 ms	10 Tap: 3.51 ms	10 Tap: N/A	10 Tap: 5.58 ms
Pixel Data Format	8 bit (2/4 Tap) 10 bit (2/4 Tap)	8 bit (2/4/8/10 Tap) 10 bit (2/4/8 Tap)	8 bit (8/10 Tap)	8 bit (2/4 Tap) 10 bit (2/4 Tap)	8 bit (2/4/8/10 Tap) 10 bit (2/4/8 Tap)
Electronic Shutter	Global Shutter				
Data Output Pixel Clock Speed	85 MHz				
Trigger Mode	Free-Run, Trigger Programmable Exposure Time and Trigger Polarity				
Dynamic Range	60 dB				
Dimension / Weight	68 mm × 68 mm × 54 mm, 373 g (with C-mount)				
Temperature	Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C				
Lens Mount	C or F-mount				
Power	10 ~ 14 V DC Typ. 4 W	10 ~ 14 V DC Typ. 4 W	10 ~ 14 V DC Typ. 5 W	10 ~ 14 V DC Typ. 4 W	10 ~ 14 V DC Typ. 4 W
Compliance	CE, FCC, KC (Application of VC-3MC in preparation)				
Configuration Software	Configurator				

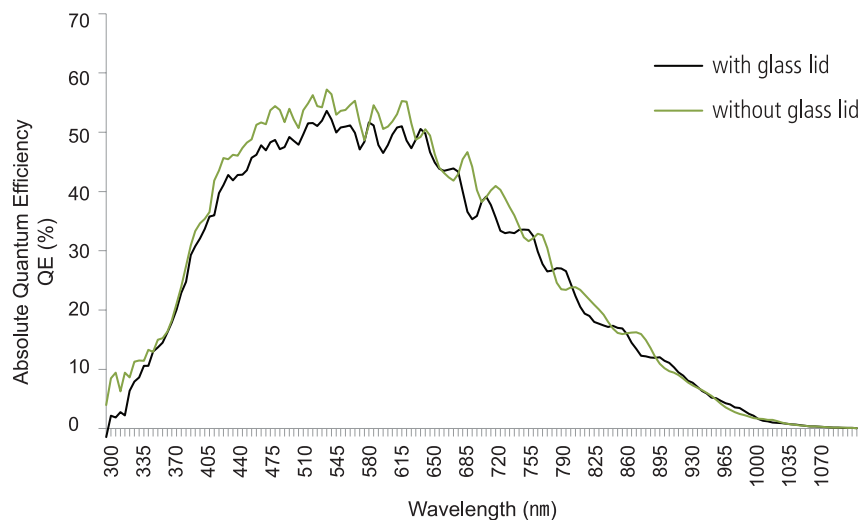
# VC-2MC / VC-3MC / VC-4MC

2, 3 & 4 MEGAPIXELS RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER, HIGH-SPEED CMOS DIGITAL CAMERA

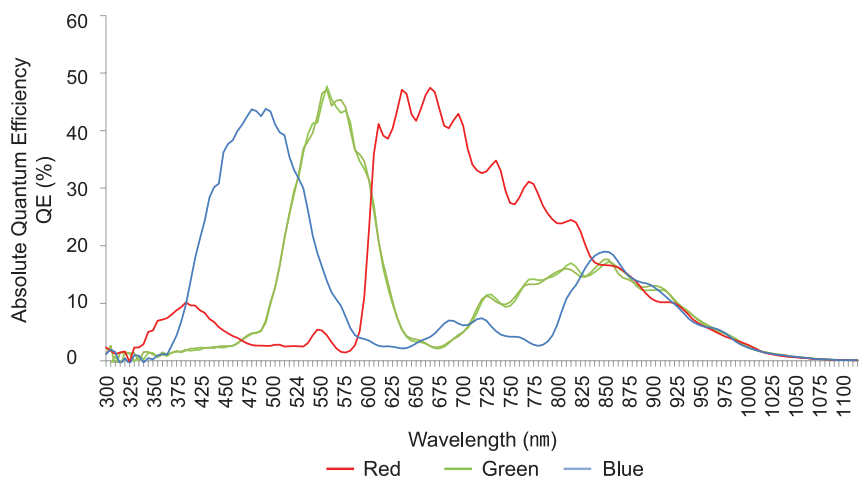
## Quantum Efficiency Curves

CMOSIS

### Monochrome with Microlens



### Color with Microlens



## Ordering Scheme

VC - 4M C - M 180 D0	
Series	Sensor Options
VC Series	D0 - On Semiconductor
	E0 - CMOSIS
Sensor Resolution	Frame Rate
2M - 2 Megapixels	80 - 80 fps
3M - 3 Megapixels	150 - 150 fps
4M - 4 Megapixels	180 - 180 fps
	280 - 280 fps
	340 - 340 fps
Interface	Mono / Color
C - Camera Link	M - Monochrome
	C - Color

## Connector Specification

Power



1 2 3: +12V DC, 4 5 6: GND  
(HR10A-7R-6PB)

Control



1: Trigger IN+, 2: Trigger IN-  
3: DC Ground, 4: Strobe OUT+  
(HR10A-7R-4S)

Connectors on camera body

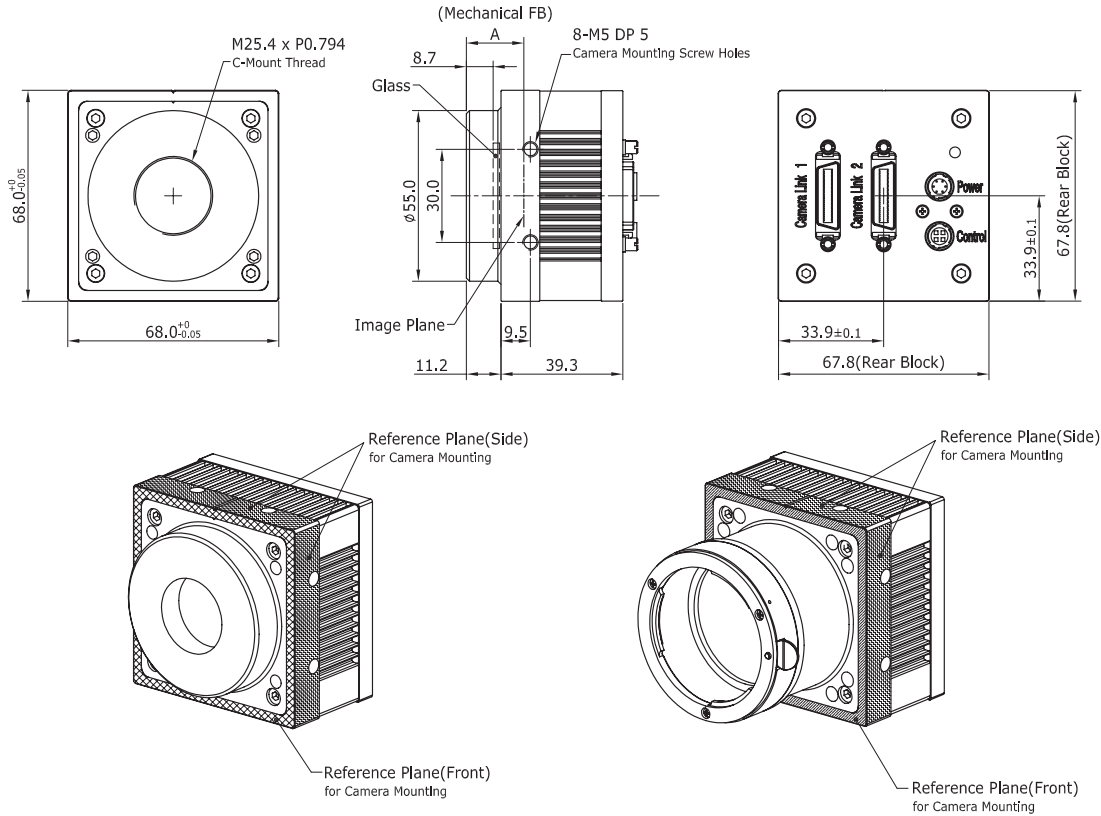
# VC-2MC / VC-3MC / VC-4MC

2, 3 & 4 MEGAPIXELS RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER, HIGH-SPEED CMOS DIGITAL CAMERA

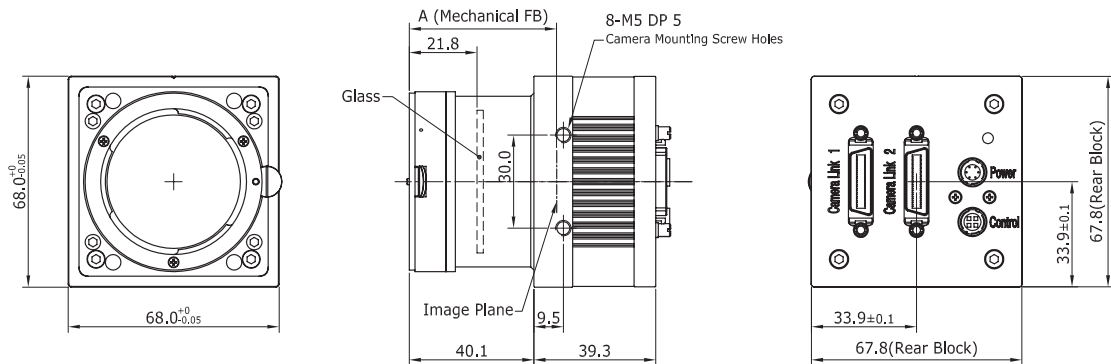
## Mechanical Dimensions

Unit: mm

### C-mount for VC-2MC, VC-3MC, VC-4MC



### F-mount for VC-2MC, VC-3MC, VC-4MC



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RA14-137-027

# VIEWWORKS

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VC-12MC-M/C 65

VC-25MC-M/C 30

VC-25MC-M/C 30 D

UP TO 25 MEGAPIXEL RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER,  
HIGH-SPEED CMOS DIGITAL CAMERA



The VC-12MC-65, VC-25MC-30 and VC-25MC-30 D, the latest members of the CMOS-based VC series, are our new high resolution CMOS cameras with Camera Link interface. The VC-12MC uses the latest 12 megapixel CMOS sensor (CMV12000) technology from CMOSIS, and performs as fast as 64 fps with high quality image. The VC-25MC-30 is based on ON Semiconductor VITA-25K CMOS sensor delivering high quality 25 megapixel images at 30 fps. The VC-25MC-30 D uses the latest 25 megapixel CMOS image sensor (PYTHON-25K) technology from On Semiconductor, and delivers high quality images at 30 fps. With their high resolution and fast speed, these cameras are ideal for applications such as PCB inspection, AOI machines, 3D inspection and many others.

**VIEWWORKS**

# VC-12MC-65 / VC-25MC-30 / VC-25MC-30 D

UP TO 25 MEGAPIXEL RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER, HIGH-SPEED CMOS DIGITAL CAMERA

## Main Features

- \* Resolutions from 12MP up to 25MP
- \* High-Speed Progressive Scan CMOS Image Sensor
- \* Global Shutter CMOS Technology
- \* Full Camera Link Interface with 8 bit or 10 bit Data Output
- \* Excellent Noise Reduction and Heat Treatment
- \* Field Upgradable Firmware
- \* Pixel Defect Correction

## Applications

- \* PCB Inspection
- \* Semiconductor Inspection
- \* 3D Inspection
- \* Scientific Research Imaging

## Specifications

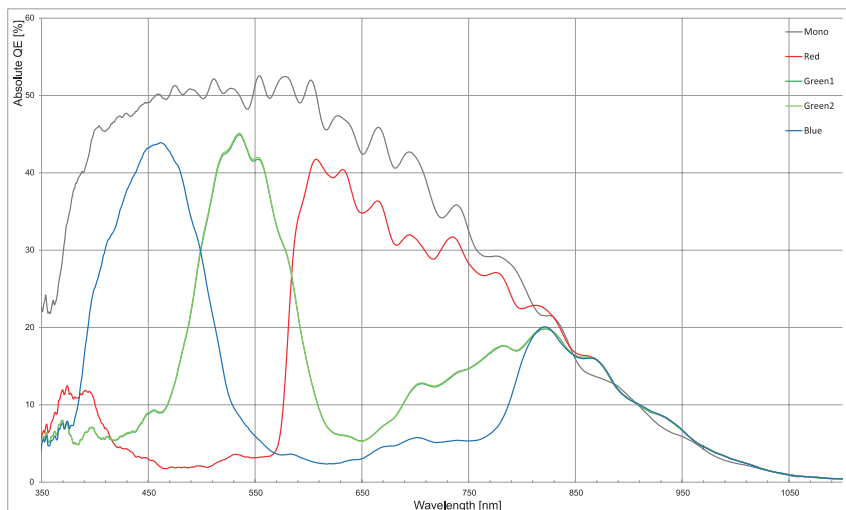
Model	VC-12MC-M/C 65	VC-25MC-M/C 30	VC-25MC-M/C 30 D
Resolution (H × V)	4096 × 3072	5120 × 5120	5120 × 5120
Sensor	CMOSIS CMV 12000	On Semiconductor VITA-25K	On Semiconductor PYTHON-25K
Sensor Size	22.5 mm × 16.9 mm (Diagonal: 28.1 mm)	23.04 mm × 23.04 mm (Optical Format: 35 mm)	23.04 mm × 23.04 mm (Diagonal: 32.6 mm)
Sensor Type	High Speed CMOS Image Sensor		
Pixel Size	5.5 μm × 5.5 μm	4.5 μm × 4.5 μm	
Interface	Camera Link		
Max. Frame Rate	2 Tap: 13.0 fps	2 Tap: N/A	2 Tap: N/A
	4 Tap: 26.0 fps	4 Tap: N/A	4 Tap: N/A
	8 Tap: 51.7 fps	8 Tap: 25.0 fps	8 Tap: 25.3 fps
	10 Tap: 64.3 fps	10 Tap: 30.9 fps	10 Tap: 30.1 fps
Transfer Time	2 Tap: 76.9 ms	2 Tap: N/A	2 Tap: N/A
	4 Tap: 38.5 ms	4 Tap: N/A	4 Tap: N/A
	8 Tap: 19.4 ms	8 Tap: 40.00 ms	8 Tap: 39.52 ms
	10 Tap: 15.6 ms	10 Tap: 32.36 ms	10 Tap: 33.22 ms
Pixel Data Format	8 bit (2/4/8/10 Tap) 10 bit (2/4/8 Tap)		
Electronic Shutter	Global Shutter		
Data Output Pixel Clock Speed	85 MHz		
Trigger Mode	Free-Run, Trigger Programmable Exposure Time and Trigger Polarity		
Dynamic Range	60 dB	54 dB	59 dB
Dimension / Weight	68 mm × 68 mm × 80 mm, 432 g (F-mount)		
Temperature	Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C		
Lens Mount	F-mount, Custom mount available upon request		
Power	10 ~ 14 V DC, Typ. 5 W	10 ~ 14 V DC, Typ. 6 W	10 ~ 14 V DC, Typ. 7 W
Compliance	CE, FCC, KC		
Configuration Software	Configurator		

# VC-12MC-65 / VC-25MC-30 / VC-25MC-30 D

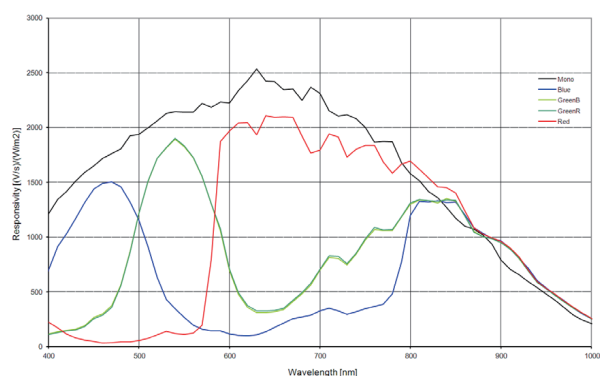
UP TO 25 MEGAPIXEL RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER, HIGH-SPEED CMOS DIGITAL CAMERA

## Quantum Efficiency Curves

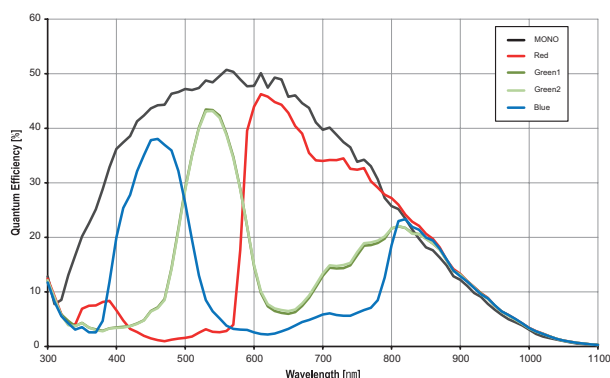
VC-12MC-65



VC-25MC-30



VC-25MC-30 D



## Ordering Scheme

VC - 25M C - M 30 D	
Series	Sensor Options
VC Series	C - Onsemi CMOS (Vita)
	D - Onsemi CMOS (Python)
	F - AMS (CMV)
Sensor Resolution	Frame Rate
12M - 12 Megapixels	30 - 30 fps
25M - 25 Megapixels	65 - 64 fps
Interface	Mono / Color
C - Camera Link	M - Monochrome
	C - Color

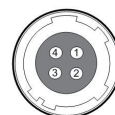
## Connector Specification

Power



1 2 3: +12V DC, 4 5 6: GND  
(HR10A-7R-6PB)

Control



1: Trigger IN+, 2: Trigger IN-  
3: DC Ground, 4: Strobe OUT+  
(HR10A-7R-4S)

Connectors on camera body

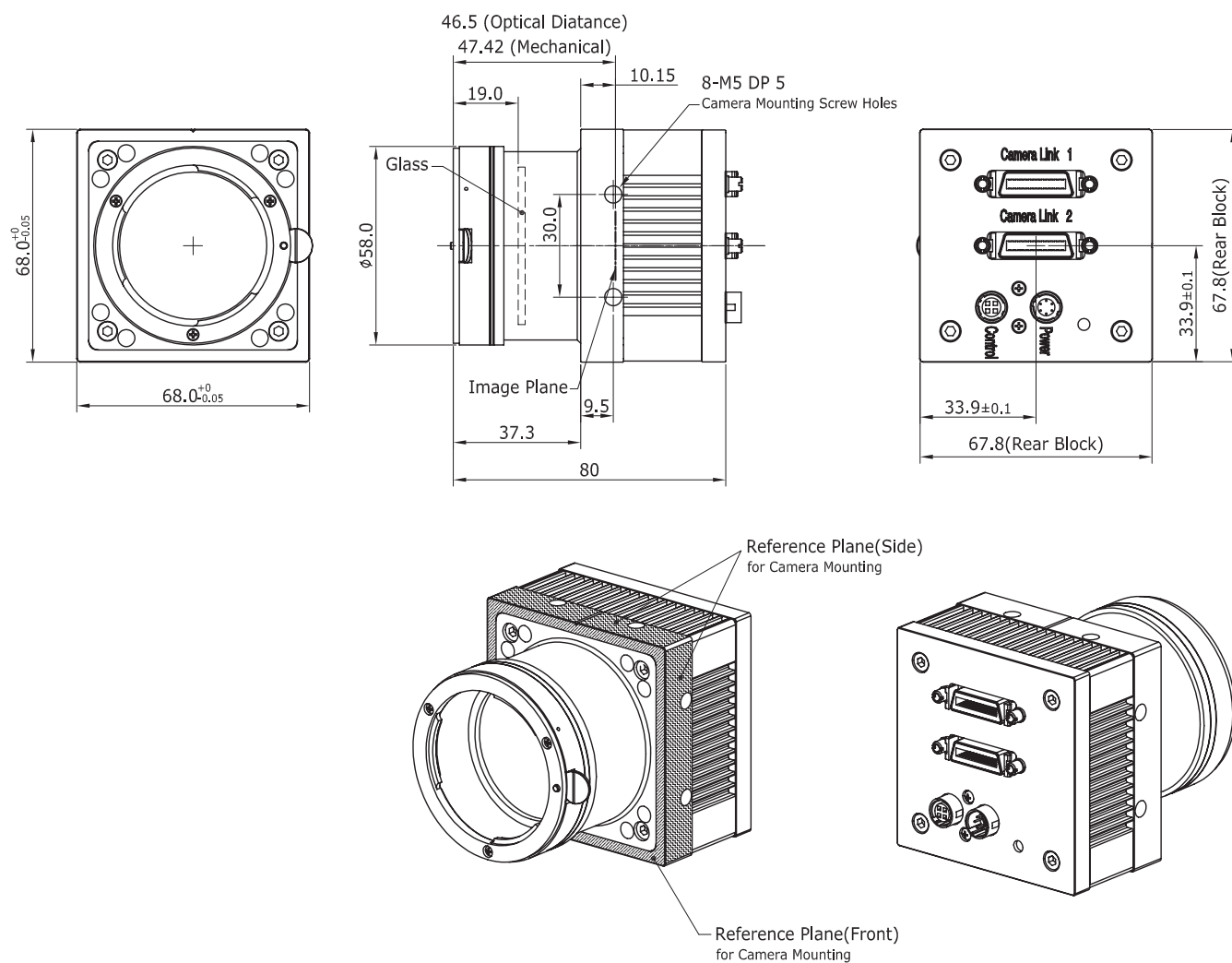
# VC-12MC-65 / VC-25MC-30 / VC-25MC-30 D

UP TO 25 MEGAPIXEL RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER, HIGH-SPEED CMOS DIGITAL CAMERA

## Mechanical Dimensions

Unit: mm

F-mount for VC-12MC-65, VC-25MC-30 and VC-25MC-30 D



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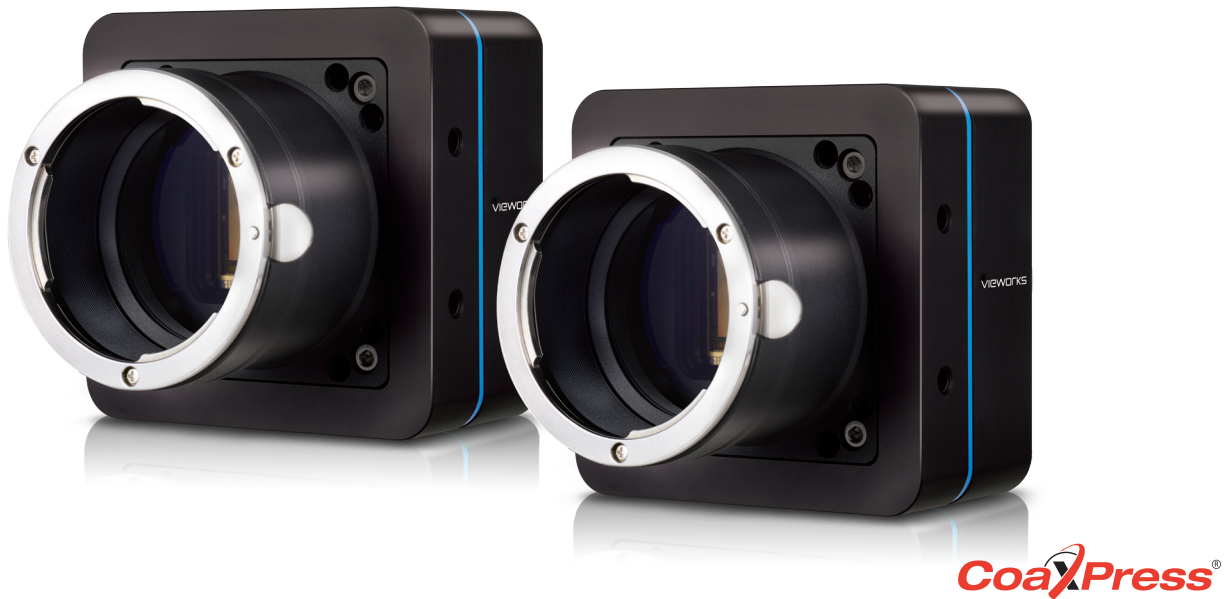
RA14-137-036

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tel +82-70-7011-6161 fax +82-31-386-8631 e-mail vision@vieworks.com

# VC-12MX-M/C 180 VC-12MX-M/C 72 VC-25MX-M/C 81 D

High Speed & High Resolution CMOS Digital Camera  
with CoaXPress Interface



The VC-12MX-180, VC-25MX-72 and VC-25MX-81 D, the latest members of industrial proven VC series, are based on the latest CMOS global shutter imagers. The VC-12MX-180 features 12 megapixel resolution with frame rates of up to 181 fps, the VC-25MX-72 features 25 megapixel resolution with frame rates of up to 72 fps and the VC-25MX-81 D features 25 megapixel resolution with frame rates of up to 81 fps.

These combinations of resolution, frame rate, and global shutter set a new standard for Industrial, Scientific, and Surveillance digital imaging applications. Customers in the industrial market can take advantage of common coax cabling to transmit images at rates and distance above and beyond previous standards. With these cameras, image data can be transmitted at up to 6.25 Gbps using a single coaxial cable and up to 25 Gbps using four cables. These high speed and high resolution models are ideal for wide range of demanding applications including PCB and semiconductor inspections.

## VIEWWORKS

[www.vieworks.com](http://www.vieworks.com)

# VC-12MX-180 / VC-25MX-72 / VC-25MX-81 D

High Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

## Main Features

- 12 & 25 Megapixel Resolutions
- High-Speed Progressive Scan CMOS Imager
- Global Shutter CMOS Technology
- CoaXPress Interface up to 181 fps at 25 Gbps using 4 CH (VC-12MX-180)
- Flat Field Correction
- DSNU and PRNU Correction (VC-25MX-72/VC-25MX-81 D)
- Low Noise with Optimized Heat Treatment

## Applications

- PCB Inspection
- Semiconductor Inspection
- 3D Inspection
- High-end Surveillance

## Specifications

Model		VC-12MX-M/C 180	VC-25MX-M/C 72	VC-25MX-M/C 81 D
Resolution (H × V)		4096 × 3072	5120 × 5120	5120 × 5120
Sensor		CMOSIS CMV 12000	On Semi. VITA-25K	On Semi. PYTHON-25K
Sensor Size		22.5 mm × 16.9 mm (Diagonal: 28.1 mm)	23.04 mm × 23.04 mm (Optical Format: 35 mm)	23.04 mm × 23.04 mm (Diagonal: 32.6 mm)
Sensor Type		High Speed CMOS Image Sensor		
Pixel Size		5.5 μm × 5.5 μm	4.5 μm × 4.5 μm	4.5 μm × 4.5 μm
Interface		CoaXPress		
Max. Frame Rate		1 CH: 46 fps @ 6.25 Gbps	1 CH: N/A	1 CH: N/A
		2 CH: 92 fps @ 6.25 Gbps	2 CH: 46 fps @ 6.25 Gbps	2 CH: 44 fps @ 6.25 Gbps
		4 CH: 181 fps @ 6.25 Gbps	4 CH: 72 fps @ 6.25 Gbps	4 CH: 81 fps @ 6.25 Gbps
Exposure Time† (1 μs step)		43 μs – 60 s	1 μs – 60 s	
Partial Scan (Max. Speed)		15151 fps at 4 Lines	7692 fps at 4 Lines (H: 256)	10989 fps at 4 Lines (H: 256)
Pixel Data Format		8 bit	8 bit, 10 bit	8 bit
Electronic Shutter		Global Shutter		
Gain Control		1 × ~ 4 ×		
Black Level Control		0 – 16 LSB at 8 bit	0 – 16 LSB at 8 bit 0 – 64 LSB at 10 bit	0 – 16 LSB at 8 bit
Trigger Synchronization		Free-Run, Timed, Trigger Width		
Dynamic Range		54 dB		
Dimension / Weight		80 mm × 80 mm × 101 mm, 620 g (F-mount)	80 mm × 80 mm × 101 mm, 630 g (F-mount)	
Temperature		Operating: -5°C ~ 40°C, Storage: -40°C ~ 70°C		
Lens Mount		F-mount		
Power	External	10 ~ 38 V DC, Typ. 12 W	10 ~ 38 V DC, Typ. 10.5 W	10 ~ 38 V DC, Typ. 12 W
	PoCXP	24 V DC, Minimum of two PoCXP cables required		
Compliance		CE, FCC, KC		
API SDK		Viewworks Imaging Solution 7.X		

† The minimum actual exposure time varies depending on the camera model.

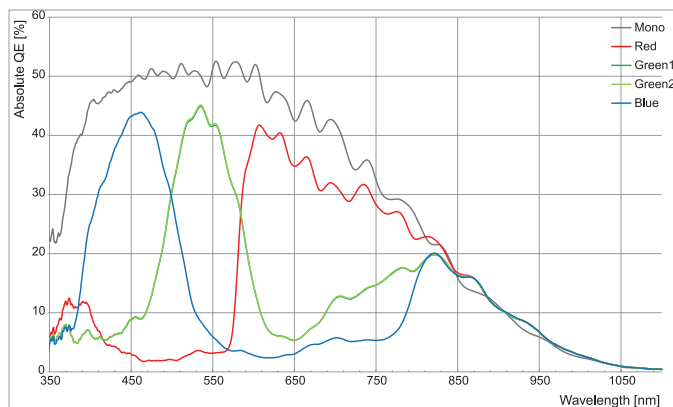
† The minimum actual exposure time varies depending on the camera model.

# VC-12MX-180 / VC-25MX-72 / VC-25MX-81 D

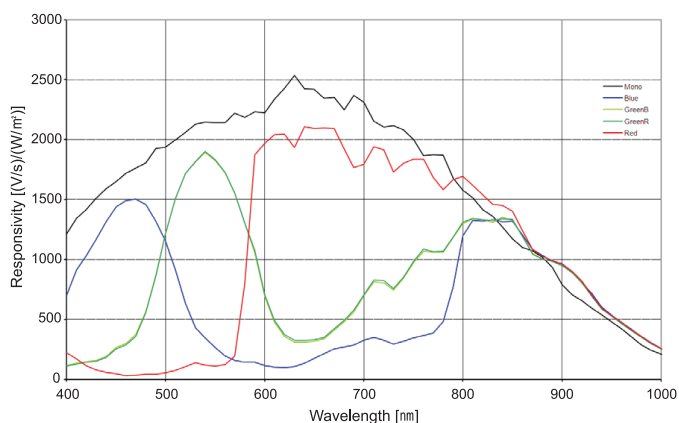
High Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

## Spectral Response

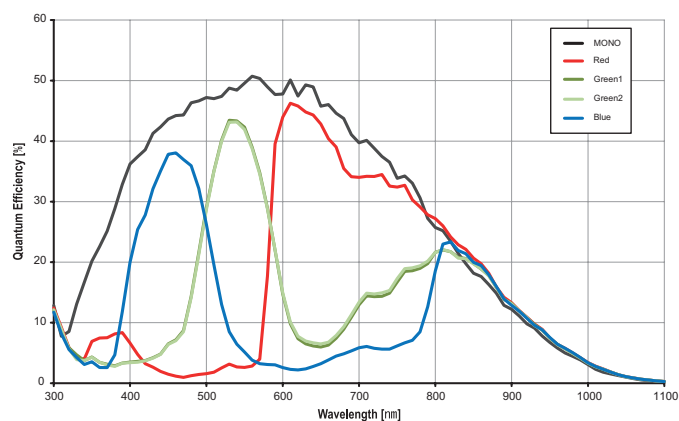
VC-12MX-M/C 180



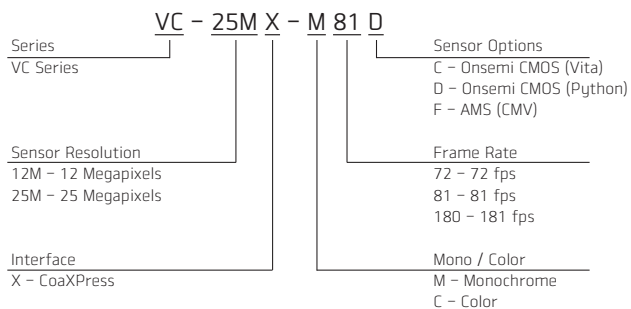
VC-25MX-M/C 72



VC-25MX-M/C 81 D



## Ordering Scheme



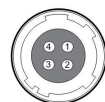
## Connector Specification

### Power



1, 2, 3: +12V DC  
4, 5, 6: GND  
(HR10A-7R-6PB)

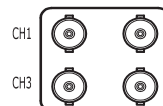
### Control



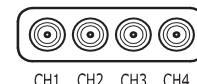
1: Trigger IN+    2: Trigger IN-  
3: DC Ground    4: Strobe OUT+

### Data Transfer/Communications

BNC



DIN



CH1: Master Connection (75 Ω, DIN 1.0/2.3)

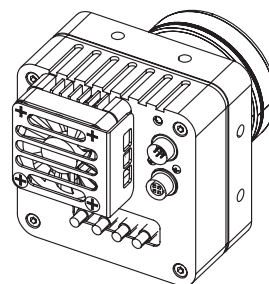
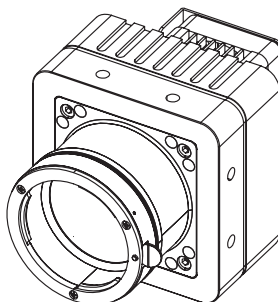
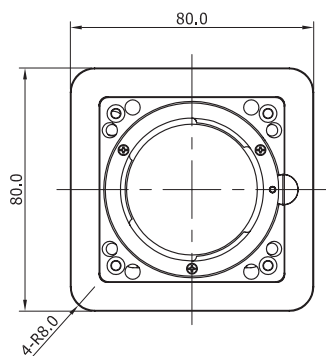
Connectors on camera body

# VC-12MX-180 / VC-25MX-72 / VC-25MX-81 D

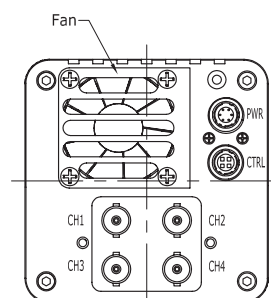
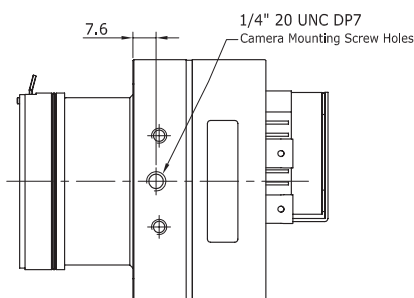
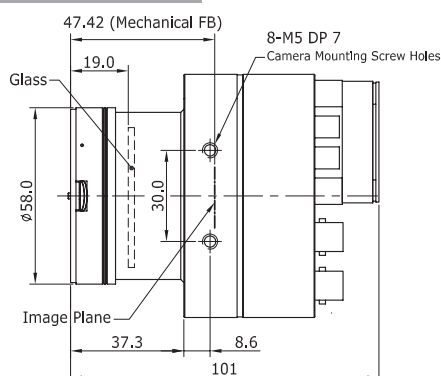
High Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

## Mechanical Dimensions

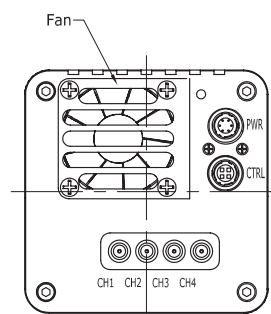
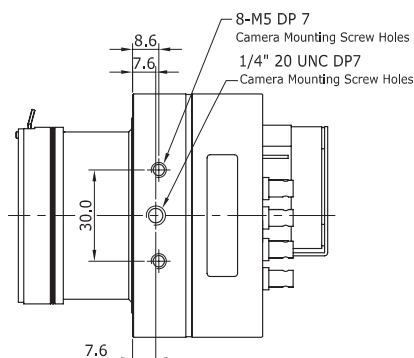
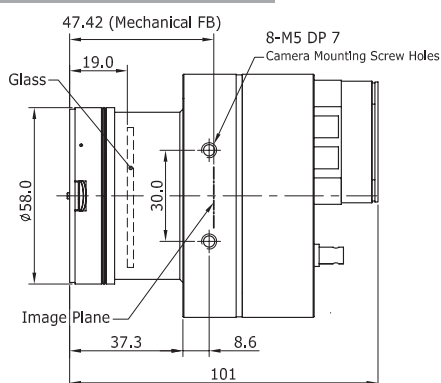
Unit: mm



### BNC Type Connector



### DIN 1.0/2/3 Type Connector



# VC-12MX-M/C 330 F

The Fastest Speed & High Resolution CMOS Digital Camera  
with CoaXPress Interface



**CoaXPress®**

The VC-12MX-330 F camera, the latest member of the industry proven VC series, is based on the latest CMOS global shutter imager. Equipped with the Viewworks' innovative technologies proved by the world's top FPD manufacturers, this camera offers not only the highest frame rate but also highly uniformed images. This camera supports 12 megapixel resolutions with frame rate up to 335 fps (CoaXPress – 8 Channels). Its CoaXPress interface supports transmitting image data at up to 25 Gbps using four coaxial cables and up to 50 Gbps using eight cables.

Featured with high quality image uniformity and high resolution, this camera is ideal for wide range of demanding applications including FPD, PCB and semiconductor inspections.

**VIEWWORKS**

[www.viewworks.com](http://www.viewworks.com)

# VC-12MX-M/C 330 F

The Fastest Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

## Main Features

- 12 Megapixels Resolution
- High-Speed Progressive Scan CMOS Imager
- Global Shutter CMOS Technology
- CoaXPress Interface up to 335 fps at 50 Gbps using 8 CH
- Flat Field Correction
- Low Noise with Optimized Heat Treatment

## Applications

- FPD and Electronics Inspection
- Semiconductor Inspection
- Research and Scientific Imaging
- Document / Film Scanning

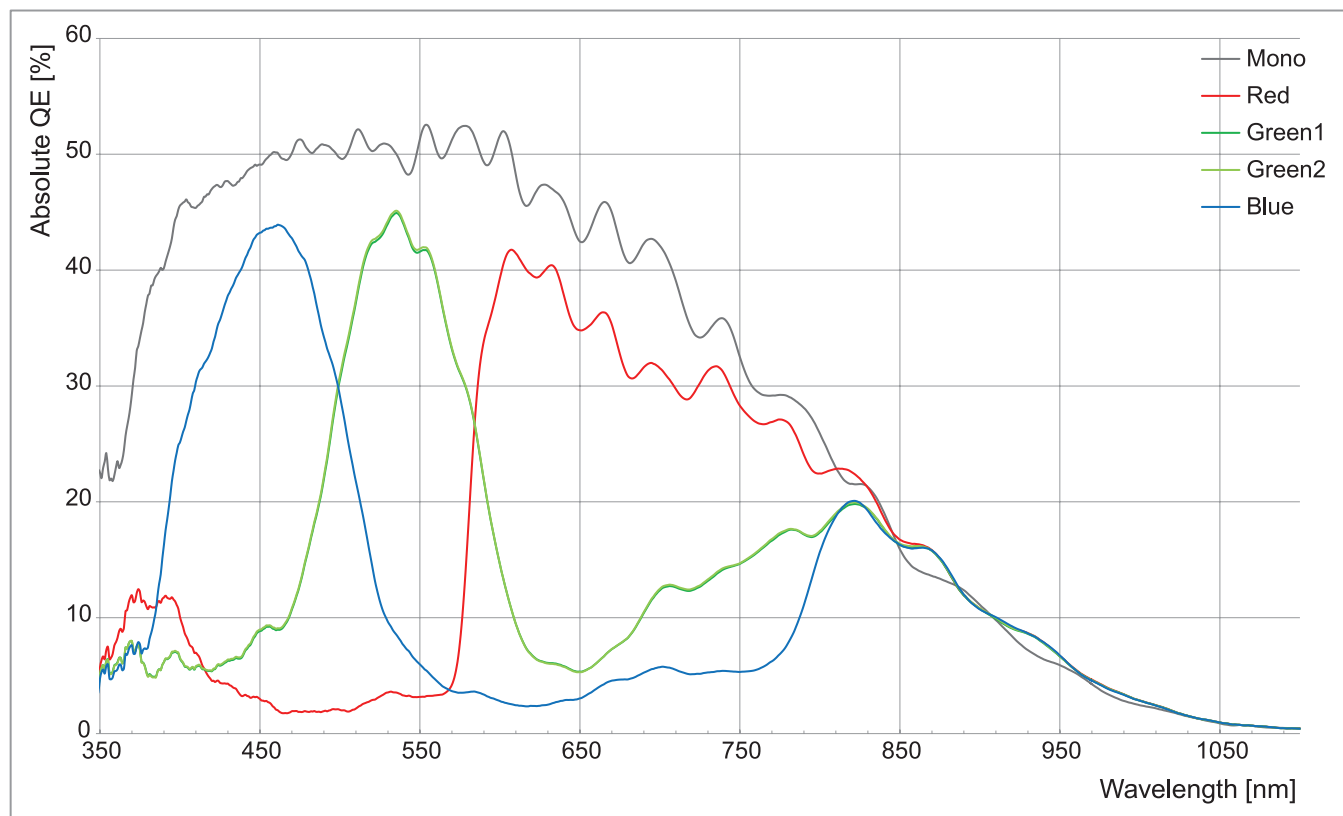
## Specifications

Model	VC-12MX-M/C 330 F	
Resolution (H × V)	4096 × 3072	
Sensor	CMOSIS CMV 12000	
Sensor Size	22.5 mm × 16.9 mm (Diagonal: 28.1 mm)	
Sensor Type	High Speed CMOS Image Sensor	
Pixel Size	5.5 μm × 5.5 μm	
Interface	CoaXPress	
Max. Frame Rate	4 CH: 188 fps @ 6.25 Gbps	
	8 CH: 335 fps @ 6.25 Gbps	
Exposure Time (1 μs step)	16 μs – 60 s	
Partial Scan (Max. Speed)	27777 fps at 4 Lines	
Pixel Data Format	8 bit	
Electronic Shutter	Global Shutter	
Gain Control	×1 ~ ×4 (0 ~ 12 dB)	
Black Level Control	0 – 16 LSB at 8 bit	
Trigger Synchronization	Free-Run, Timed, Trigger Width	
Dynamic Range	54 dB	
Dimension / Weight	90 mm × 90 mm × 114 mm, 745 g (F-mount)	
Temperature	Operating: 0°C ~ 40°C (Housing: 10°C ~ 50°C), Storage: -40°C ~ 70°C	
Lens Mount	F-mount	
Power	External	8 ~ 30 V DC, Typ. 18 W
	PoCXP	24 V DC, Minimum of four PoCXP cables required
Compliance	CE, FCC, KC	
API SDK	Viewworks Imaging Solution 7.X	

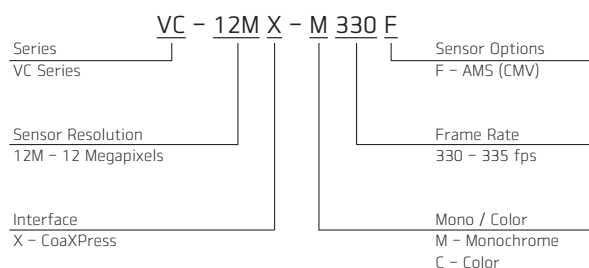
# VC-12MX-M/C 330 F

The Fastest Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

## Spectral Response



## Ordering Scheme



## Connector Specification

### Power



1, 2, 3: +12V DC  
4, 5, 6: GND  
(HR10A-7R-6PB)

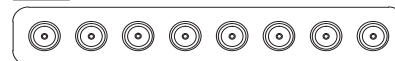
### Control



1: Trigger IN+ 2: Trigger IN-  
3: DC Ground 4: Strobe OUT+  
(HR10A-7R-4S)

### Data Transfer/Communications

DIN



CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8

CH1: Master Connection (75  $\Omega$ , DIN 1.0/2.3)

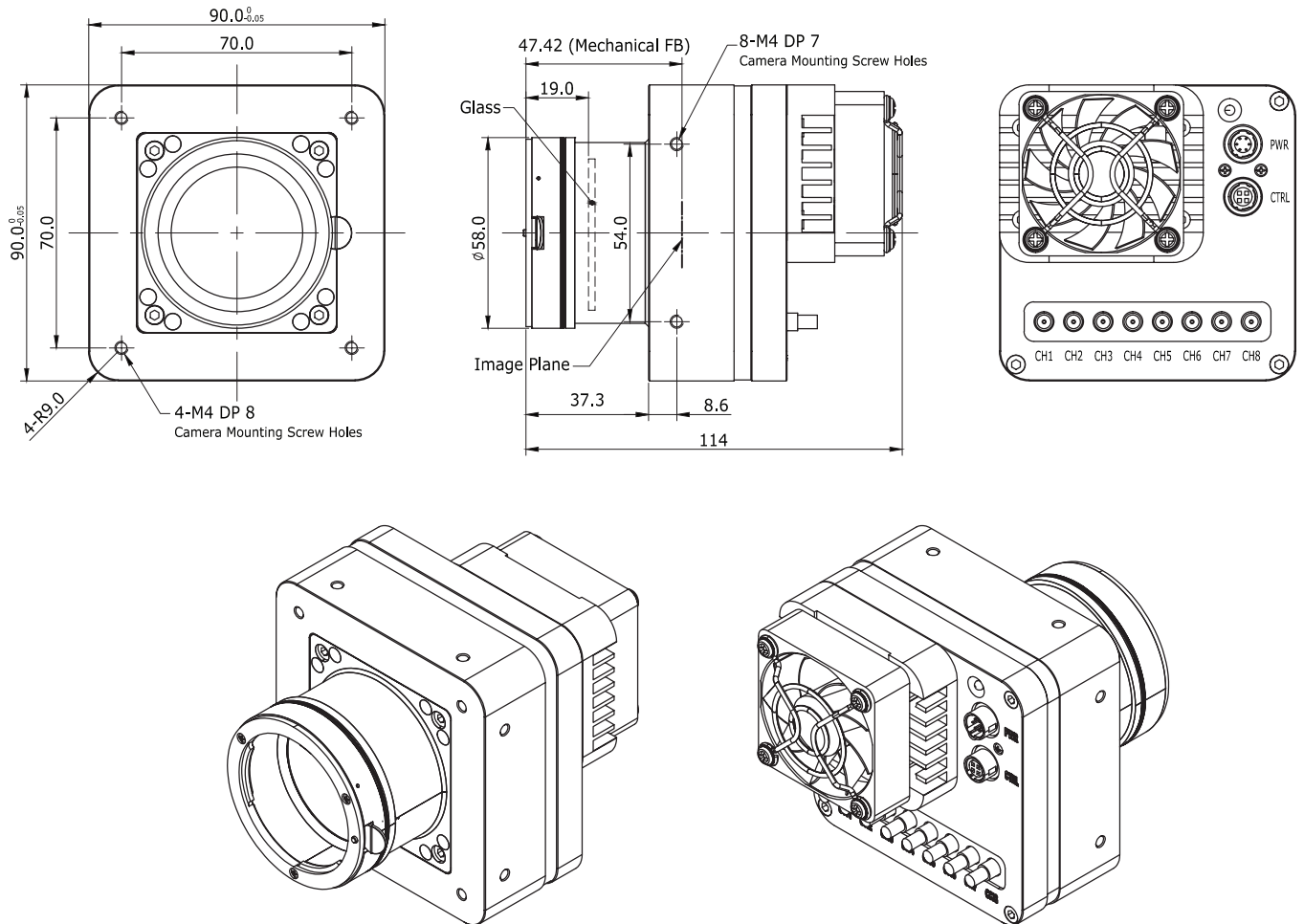
Connectors on camera body

# VC-12MX-M/C 330 F

The Fastest Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

## Mechanical Dimensions

Unit: mm



# VC-25MC-M/C 31 I

25 Megapixel High Speed CMOS Digital Camera



The VC-25MC-31 I, the latest model of the industrial proven VC series, is a new 25 megapixel resolution CMOS camera with the Camera Link interface. The VC-25MC-31 I uses the latest CMOS global shutter image sensor (GMAX0505) technology from Gpixel and offers up to 31.7 frames per second at  $5120 \times 5120$  resolution. These combinations of high resolution, high speed and global shutter set a new standard for industrial, scientific and surveillance digital imaging applications. Equipped with the Viewworks' innovative technologies proved by world's top FPD manufacturers, the VC-25MC-31 I camera offers not only highly uniformed images but also high speed image processing capabilities. Featured with high quality image uniformity and high resolution, this camera is ideal for wide range of demanding applications such as FPD, PCB and semiconductor inspections.

## viewworks

[www.viewworks.com](http://www.viewworks.com)

# VC-25MC-M/C 31 I

25 Megapixel High Speed CMOS Digital Camera

## Main Features

- 25 Megapixel Resolution
- Camera Link Full Interface up to 31.7 fps
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- GenICam Compatible – XML based Control

## Applications

- Flat Panel Display Inspection
- Electronics Inspection
- Semiconductor Inspection
- Document / Film Scanning

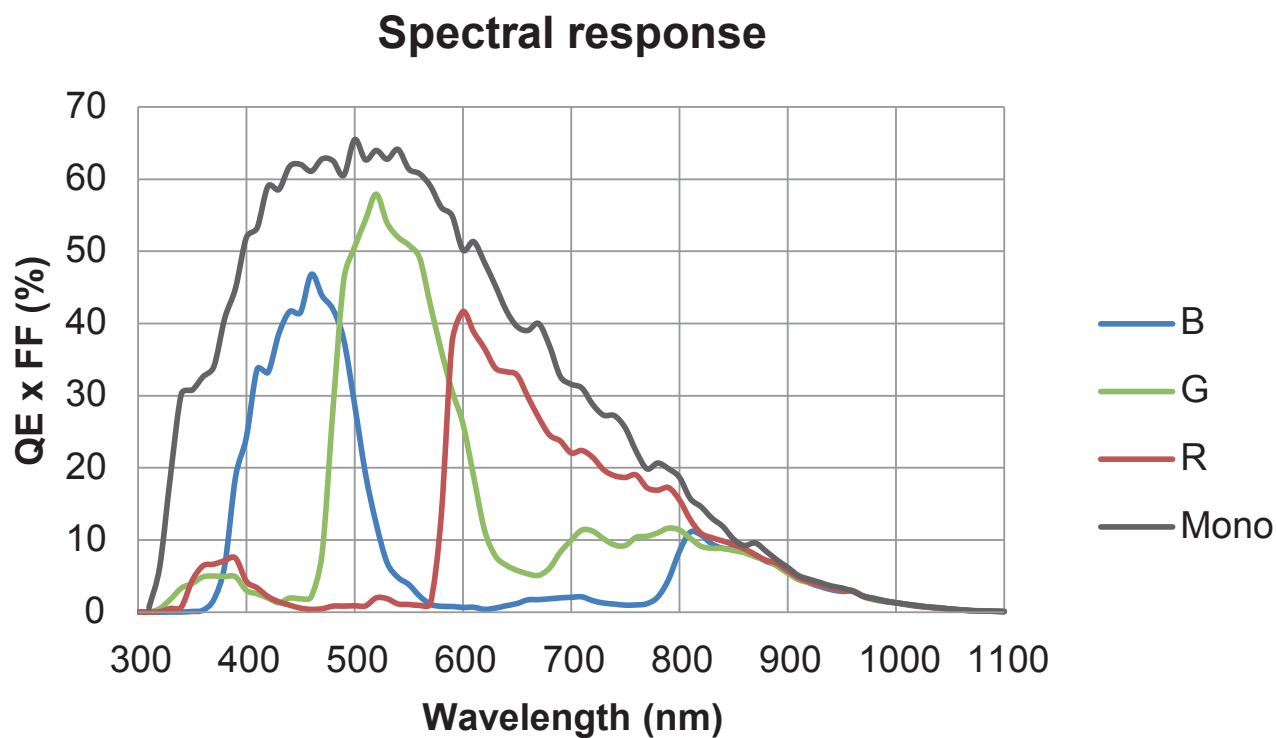
## Specifications

Model		VC-25MC-M/C 31 I
Resolution (H × V)		5120 × 5120
Sensor		Gpixel GMAX0505
Sensor Size (Diagonal)		12.8 mm × 12.8 mm (18.1 mm)
Pixel Size		2.5 μm × 2.5 μm
Interface		Camera Link Base / Medium / Full / 10 Tap, 26-pin SDR Connector
Max. Frame Rate		2 Tap: 6.4 fps
		4 Tap: 12.7 fps
		8 Tap: 25.2 fps
		10 Tap: 31.7 fps
Exposure Time (1 μs step)		1 μs ~ 60 s
Partial Scan (Max. Speed)		546.4 fps at 64 × 2
Pixel Data Format	Mono	Mono 8 / Mono 10 / Mono 12
	Color	GB Bayer 8 / GB Bayer 10 / GB Bayer 12
Electronic Shutter		Global Shutter
Trigger Synchronization		Free-Run, Hardware Trigger or CC1
External Trigger		3.3 V ~ 24.0 V, 10 mA, Logical Level Input, Optically Isolated
Dynamic Range		65 dB
Gain Control		1× ~ 32×
Black Level Control		0 ~ 255 LSB at 12 bit
Dimension / Weight		50 mm × 50 mm × 54 mm, 215 g (with C mount)
Temperature		Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C
Lens Mount		C-mount, Custom mount available upon request
Power	External	11 ~ 24 V DC
	Dissipation	Typ. 6.0 W
Compliance		CE, FCC, KC

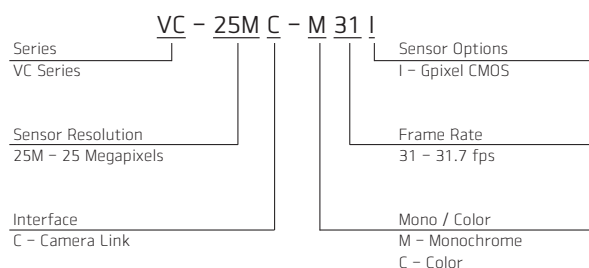
# VC-25MC-M/C 31 I

25 Megapixel High Speed CMOS Digital Camera

## Spectral Response



## Ordering Scheme



## Connector Specification

Power / Control



- |                                      |                |
|--------------------------------------|----------------|
| 1: DC Ground                         | 2: +12 V DC    |
| 3: I/O Output-                       | 4: I/O Output+ |
| 5: Trigger IN-                       | 6: Trigger IN+ |
| 7~12: Not Connected (HR10A~10R-12PB) |                |

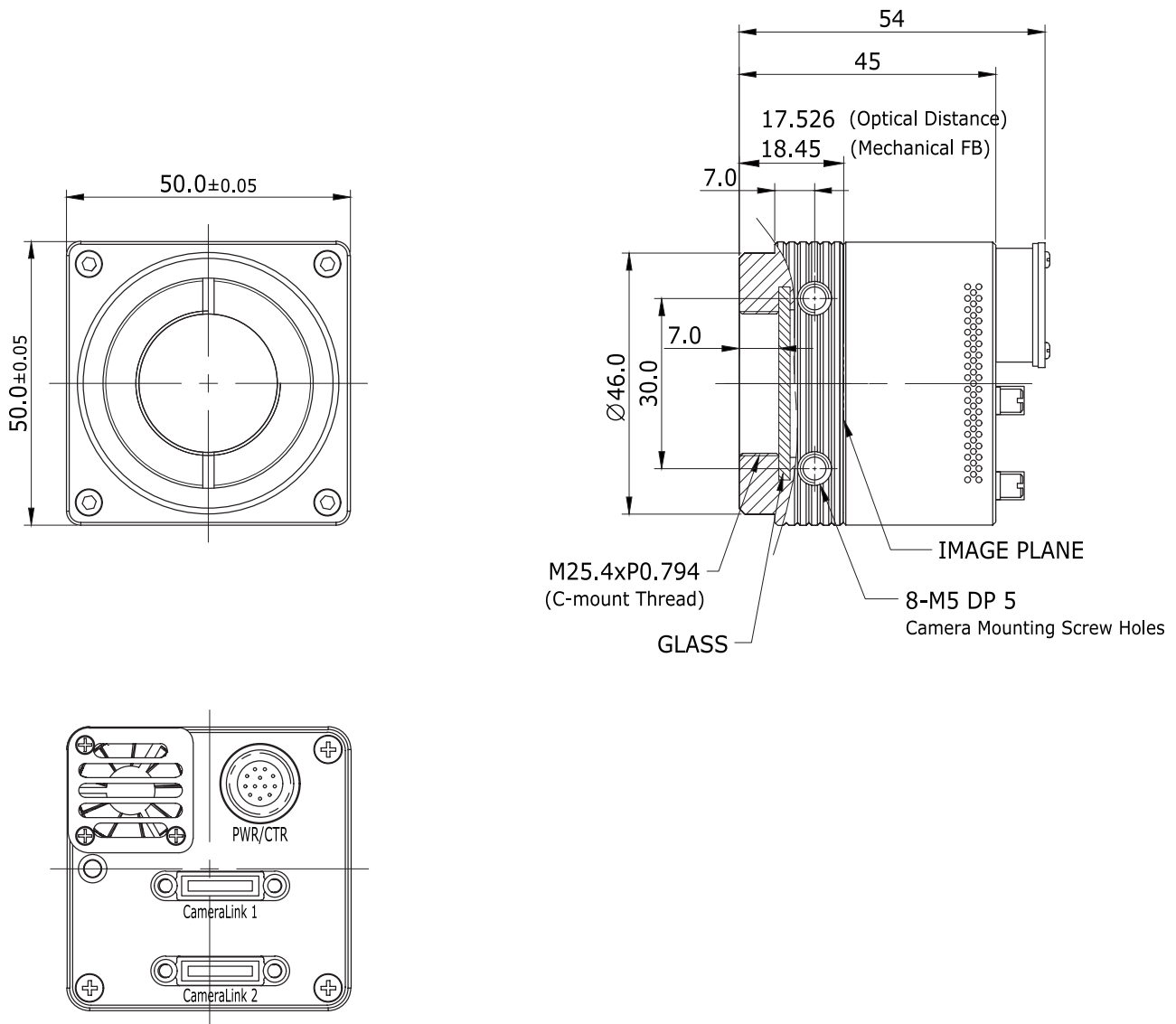
Connectors on camera body

# VC-25MC-M/C 31 I

25 Megapixel High Speed CMOS Digital Camera

## Mechanical Dimensions

Unit: mm



# VC-25MX-M/C 91 I

25 Megapixel High Speed CMOS Digital Camera



**CoaXPress®**

The VC-25MX-91 I, the latest model of the industrial proven VC series, is a new 25 megapixel resolution CMOS camera with the CoaXPress interface. The VC-25MX-91 I uses the latest CMOS global shutter image sensor (GMAX0505) technology from Gpixel and offers up to 91.3 frames per second at  $5120 \times 5120$  resolution. These combinations of high resolution, high speed and global shutter set a new standard for industrial, scientific and surveillance digital imaging applications. Customers in the industrial market can take advantage of common coax cabling to transmit images at rates and distance above and beyond previous standards. This high speed and high resolution camera is ideal for wide range of demanding applications such as FPD, PCB and semiconductor inspections.

**VIEWWORKS**

[www.viewworks.com](http://www.viewworks.com)

# VC-25MX-M/C 91 I

25 Megapixel High Speed CMOS Digital Camera

## Main Features

- 25 Megapixel Resolution
- CoaXPress Interface up to 91.3 fps at 25 Gbps using 4 CH
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- Dynamic Defective Pixel Correction
- GenICam Compatible – XML based Control

## Applications

- Flat Panel Display Inspection
- Electronics Inspection
- Semiconductor Inspection
- Document / Film Scanning

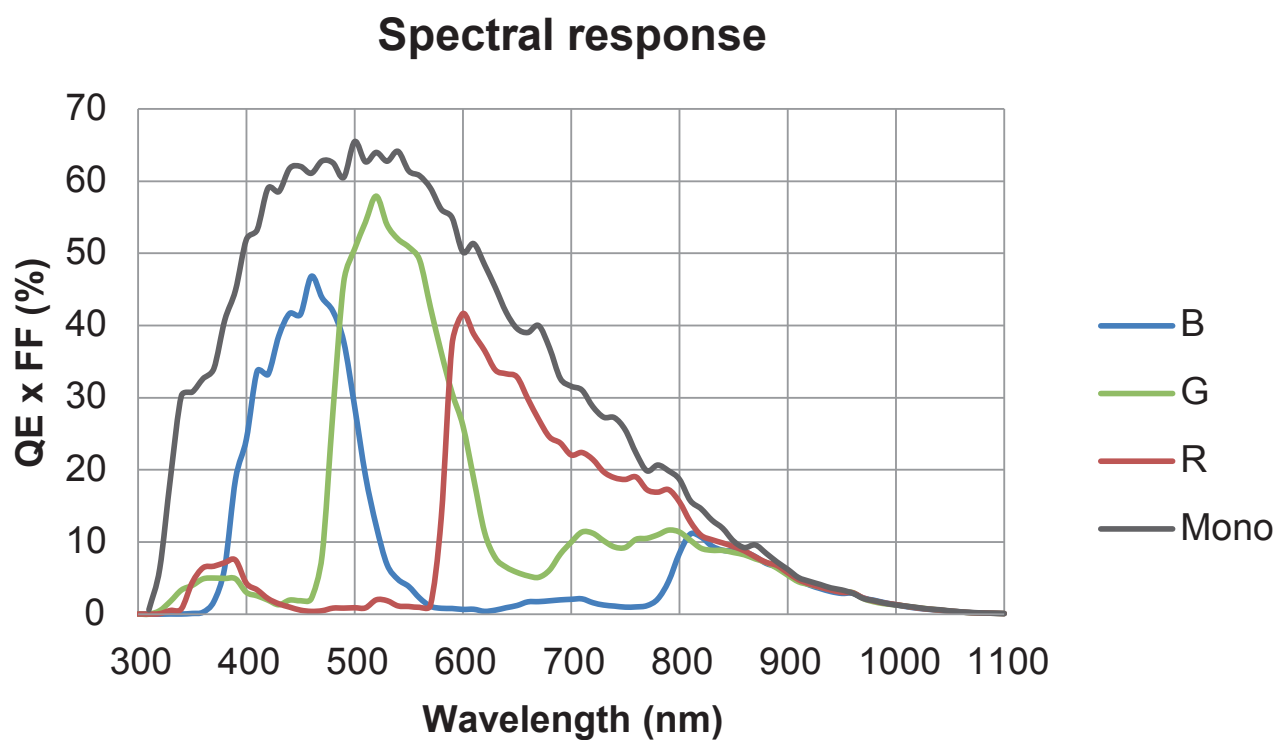
## Specifications

Model		VC-25MX-M/C 91 I
Resolution (H × V)		5120 × 5120
Sensor		Gpixel GMAX0505
Sensor Size (Diagonal)		12.8 mm × 12.8 mm (18.1 mm)
Pixel Size		2.5 $\mu$ m × 2.5 $\mu$ m
Interface		CoaXPress
Max. Frame Rate		1 CH: 23.2 fps
		2 CH: 46.5 fps
		4 CH: 91.3 fps
Exposure Time (1 $\mu$ s step)		1 $\mu$ s – 60 s
Partial Scan (Max. Speed)		14260 fps at 64 × 2
Pixel Data Format	Mono	Mono 8 / Mono 10
	Color	GB Bayer 8 / GB Bayer 10
Electronic Shutter		Global Shutter
Trigger Synchronization		Free-Run, Hardware Trigger, Software Trigger or CXP
External Trigger		3.3 V ~ 24.0 V, 10 mA, Logical Level Input, Optically Isolated
Software Trigger		Asynchronous, Programmable via Camera API
Dynamic Range		60 dB
Gain Control		1 × ~ 32 ×
Black Level Control		0 ~ 63 LSB at 10 bit
Dimension / Weight		50 mm × 50 mm × 57 mm, 215 g (with C mount)
Temperature		Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C
Lens Mount		C-mount, Custom mount available upon request
Power	External	11 ~ 24 V DC
	Dissipation	Typ. 10.0 W
	PoCXP	24 V DC, CH 1 only
Compliance		CE, FCC, KC
API SDK		Viewworks Imaging Solution 7.X

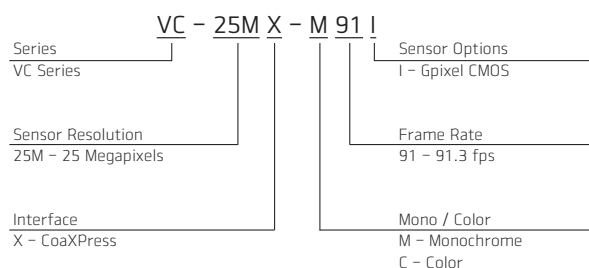
# VC-25MX-M/C 91 I

25 Megapixel High Speed CMOS Digital Camera

## Spectral Response



## Ordering Scheme



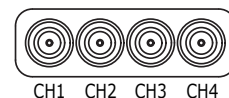
## Connector Specification

### Power / Control



- 1: DC Ground
- 2: +12 V DC
- 3: I/O Output-
- 4: I/O Output+
- 5: Trigger IN-
- 6: Trigger IN+
- 7~12: Not Connected (HR10A-10R-12PB)

### Data Transfer / Communications



CH1: Master Connection  
(75  $\Omega$ , DIN 1.0/2.3)

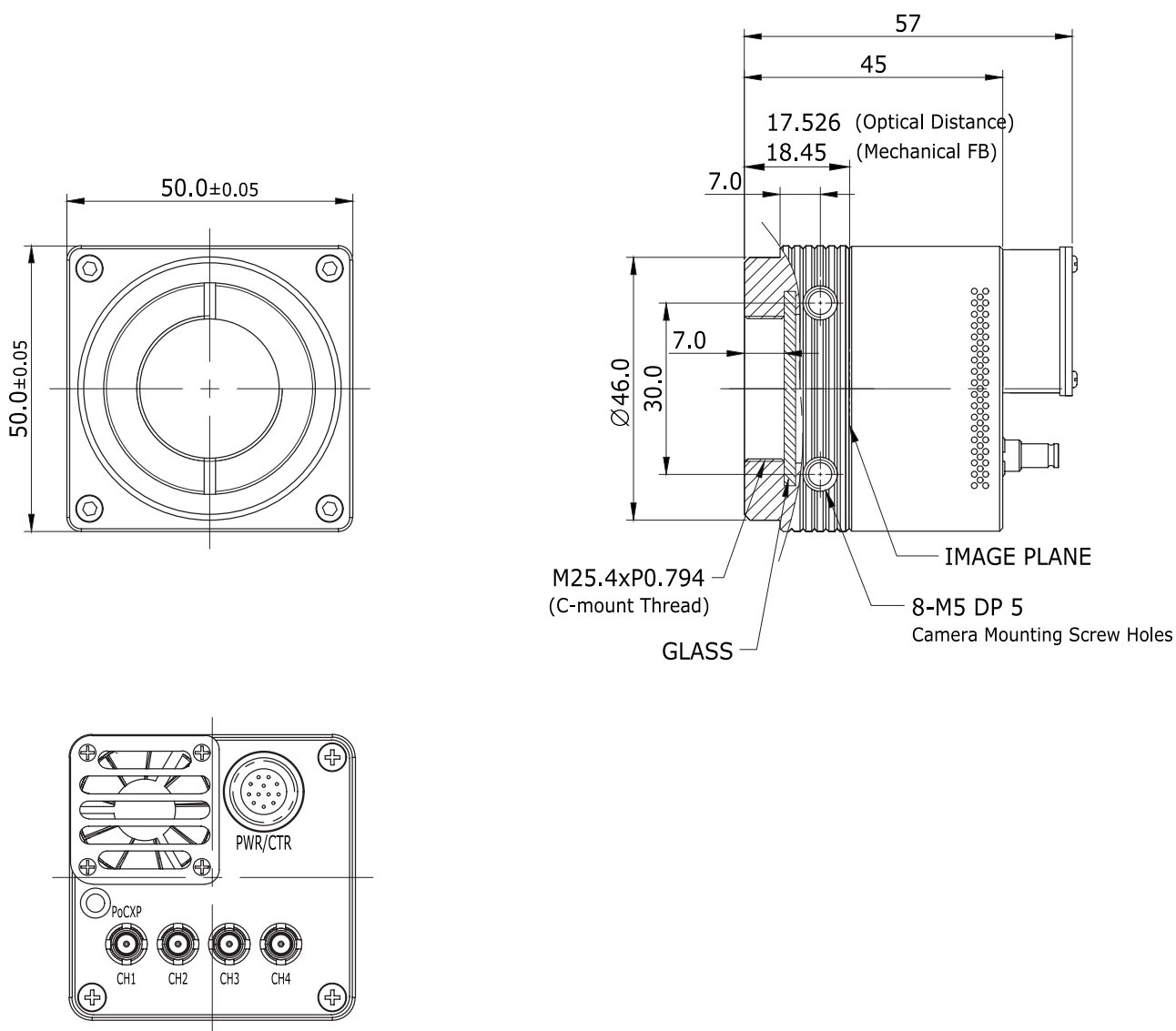
Connectors on camera body

# VC-25MX-M/C 91 I

25 Megapixel High Speed CMOS Digital Camera

## Mechanical Dimensions

Unit: mm



# VC-50MC

50 MEGAPIXEL CMOS DIGITAL CAMERA WITH CAMERA LINK INTERFACE



The VC-50MC, the latest member of the industrial proven VC series, is a 50 megapixel resolution CMOS camera with the Camera Link interface. The VC-50MC uses the latest 50 megapixel CMOS imaging sensor (CMV50000) technology from AMS CMOSIS, and offers up to 17.5 frames per second at 7920 × 6004 resolution. Equipped with the Viewworks' innovative technologies proved by world's top FPD manufacturers, the VC-50MC camera offers not only highly uniformed images but also high speed image processing capabilities. Featured with high quality image uniformity and high resolution, this camera is ideal for demanding applications such as FPD, PCB and semiconductor inspections.

**VIEWWORKS**

# VC-50MC

50 MEGAPIXEL CMOS DIGITAL CAMERA WITH CAMERA LINK INTERFACE

## Main Features

- \* 50 Megapixel Resolution (AMS CMOSIS)
- \* High Speed Progressive Scan CMOS Imager
- \* Global Shutter CMOS Technology
- \* Camera Link (Base / Medium / Full) Interface
- \* Pixel Defect Correction
- \* Flat Field Correction
- \* DSNU and PRNU Correction

## Applications

- \* Flat Panel Display Inspection
- \* PCB Inspection
- \* Machine Vision Inspection
- \* Microscopy and Metrology

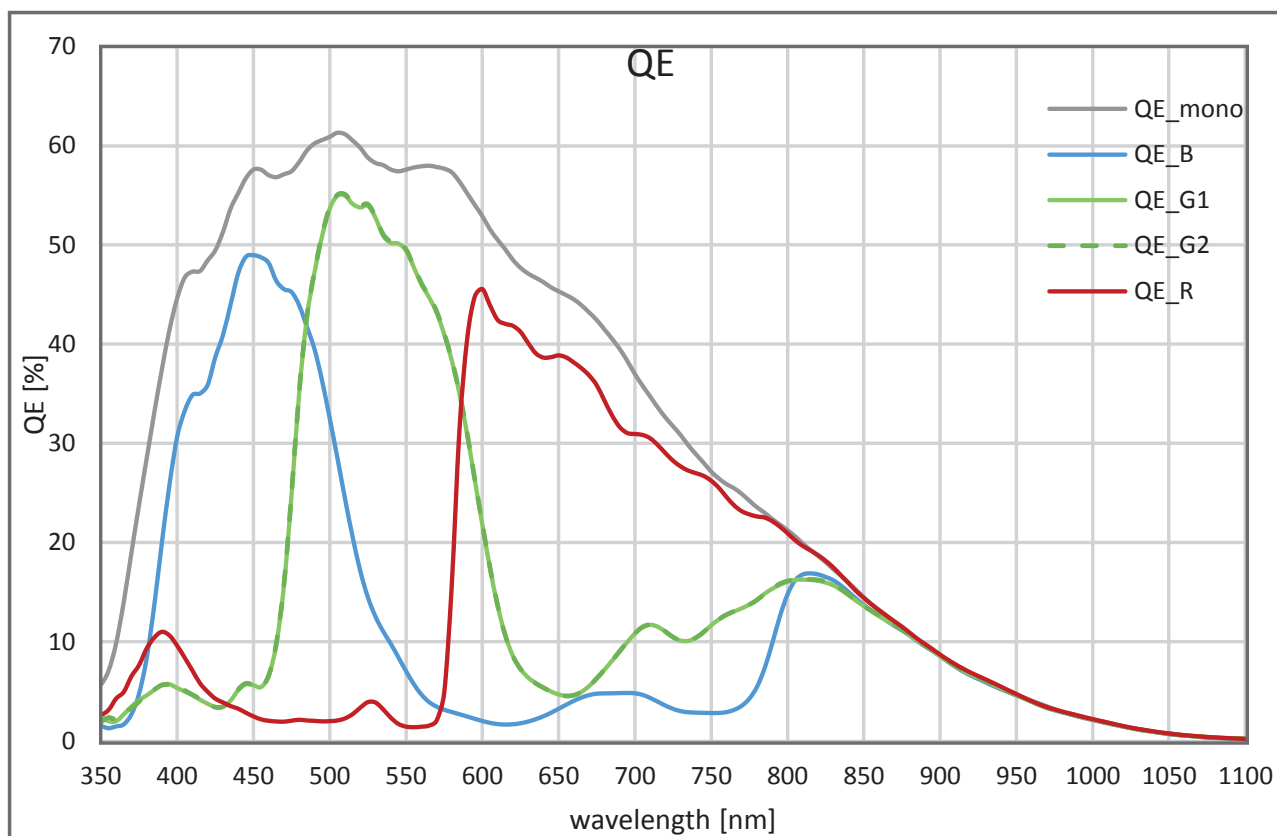
## Specifications

Model	VC-50MC-M/C 18
Resolution (H × V)	7920 × 6004
Sensor	AMS CMOSIS CMV 50000
Sensor Size	36.43 mm × 27.62 mm (Diagonal: 45.72 mm, Optical Format: 35 mm)
Sensor Type	High Speed CMOS Image Sensor
Pixel Size	4.6 μm × 4.6 μm
Interface	Camera Link Base / Medium / Full
Max. Frame Rate (@ 85 MHz)	2 Tap: 3.5 fps
	3 Tap: 5.2 fps
	4 Tap: 7.1 fps
	8 Tap: 14.1 fps
	10 Tap: 17.5 fps
Exposure Time (1 μs step)	1 μs – 60 s
Pixel Data Format	8 bit (2/3/4/8/10 Tap), 10 bit (2/4/8 Tap), 12 bit (2/4 Tap)
Data Output Pixel Clock Speed	85 MHz / 65 MHz
Electronic Shutter	Global Shutter
Exposure Mode	Free-Run, Timed and Trigger Width
Dynamic Range	64 dB
Gain Control	1× ~ 30× (1/1024 step)
Black Level Control	0 ~ 256 LSB at 12 bit (1 LSB step)
Dimension / Weight	68 mm × 68 mm × 102 mm, 432 g
Temperature	Operating: -5°C ~ 40°C, Storage: -40°C ~ 70°C
Vibration / Shock	3G (20 ~ 200 Hz) XYZ / 10G 6 ms
Lens Mount	F-mount, Custom mount available upon request
Power	10 ~ 24 V DC, Typ. 9.0 W
Compliance	CE, FCC, KC
Configuration Software	Configurator

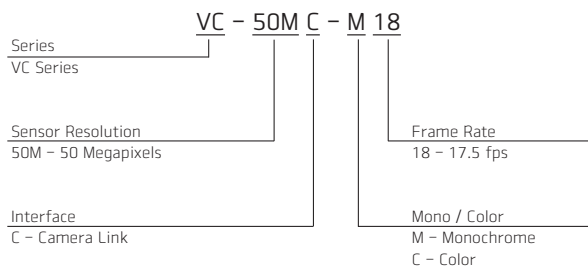
# VC-50MC

50 MEGAPIXEL CMOS DIGITAL CAMERA WITH CAMERA LINK INTERFACE

## Quantum Efficiency Curves



## Ordering Scheme



## Connector Specification

Power



1 2 3: +12V DC, 4 5 6: GND  
(HR10A-7R-6PB)

Control



1: Trigger IN+, 2: Trigger IN-  
3: Strobe Out-(GND), 4: Strobe OUT+  
(HR10A-7R-4S)

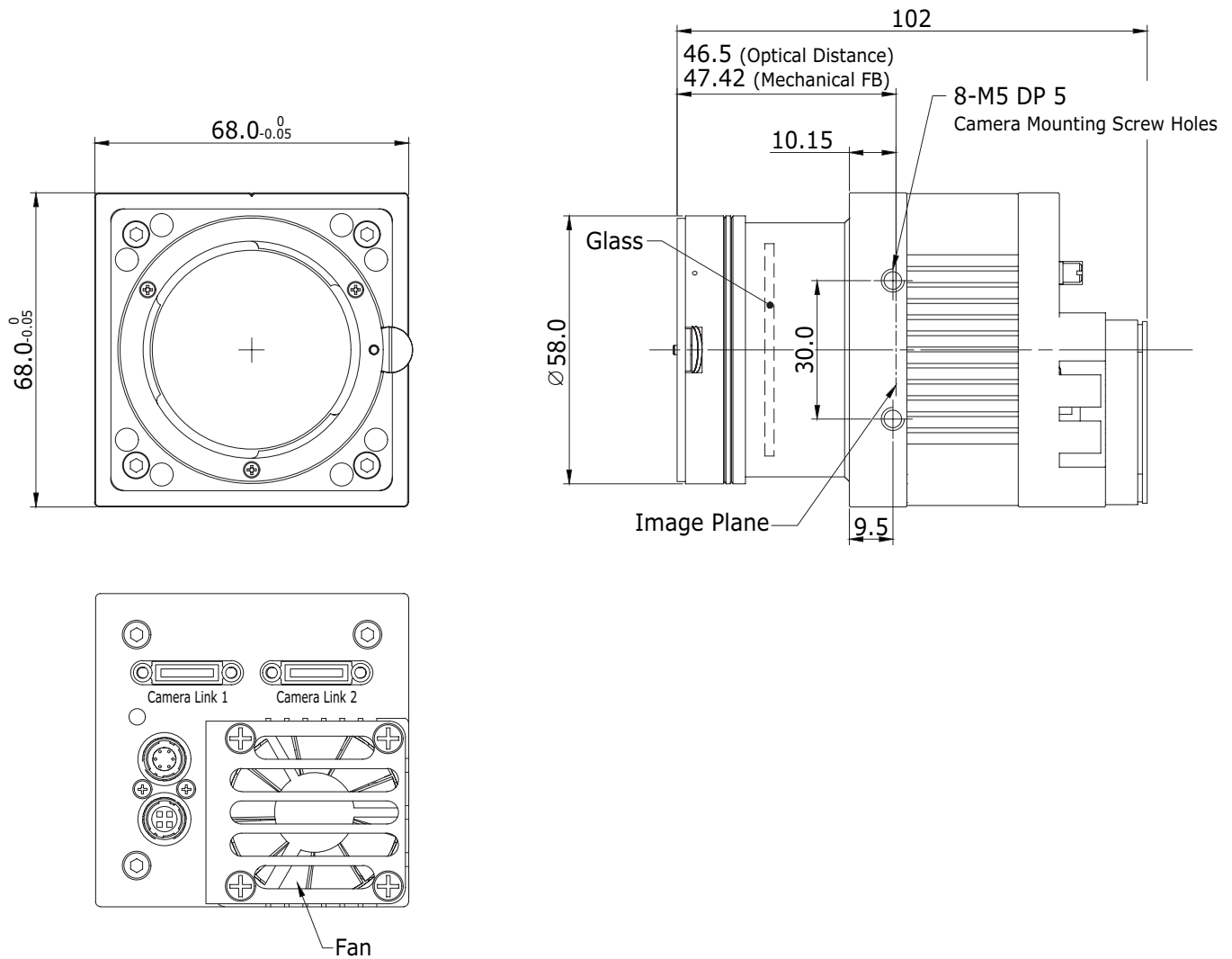
Connectors on camera body

# VC-50MC

50 MEGA PIXEL CMOS DIGITAL CAMERA WITH CAMERA LINK INTERFACE

## Mechanical Dimensions

Unit: mm



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# VIEWWORKS

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tel +82-70-7011-6161 fax +82-31-386-8631 e-mail [sales@viewworks.com](mailto:sales@viewworks.com)

# VC-50MX

50 MEGAPIXEL CMOS DIGITAL CAMERA WITH COAXPRESS INTERFACE



The VC-50MX, the latest member of the industrial proven VC series, is a 50 megapixel resolution CMOS camera with the CoaXPress interface. The VC-50MX uses the latest 50 megapixel CMOS image sensor (CMV50000) technology from AMS CMOSIS, and offers up to 30.9 frames per second at 7920 × 6004 resolution. Equipped with the Viewworks' innovative technologies proved by world's top FPD manufacturers, the VC-50MX camera offers not only highly uniformed images but also high speed image processing capabilities. Featured with high quality image uniformity and high resolution, this camera is ideal for demanding applications such as FPD, PCB and semiconductor inspections.

**VIEWWORKS**

# VC-50MX

50 MEGAPIXEL CMOS DIGITAL CAMERA WITH COAXPRESS INTERFACE

## Main Features

- \* 50 Megapixel Resolution (AMS CMOSIS)
- \* High Speed Progressive Scan CMOS Imager
- \* Global Shutter CMOS Technology
- \* CoaXPress Interface up to 30 fps at 25 Gbps using 4 CH
- \* Pixel Defect Correction
- \* Flat Field Correction
- \* DSNU and PRNU Correction

## Applications

- \* Flat Panel Display Inspection
- \* PCB Inspection
- \* Machine Vision Inspection
- \* Microscopy and Metrology

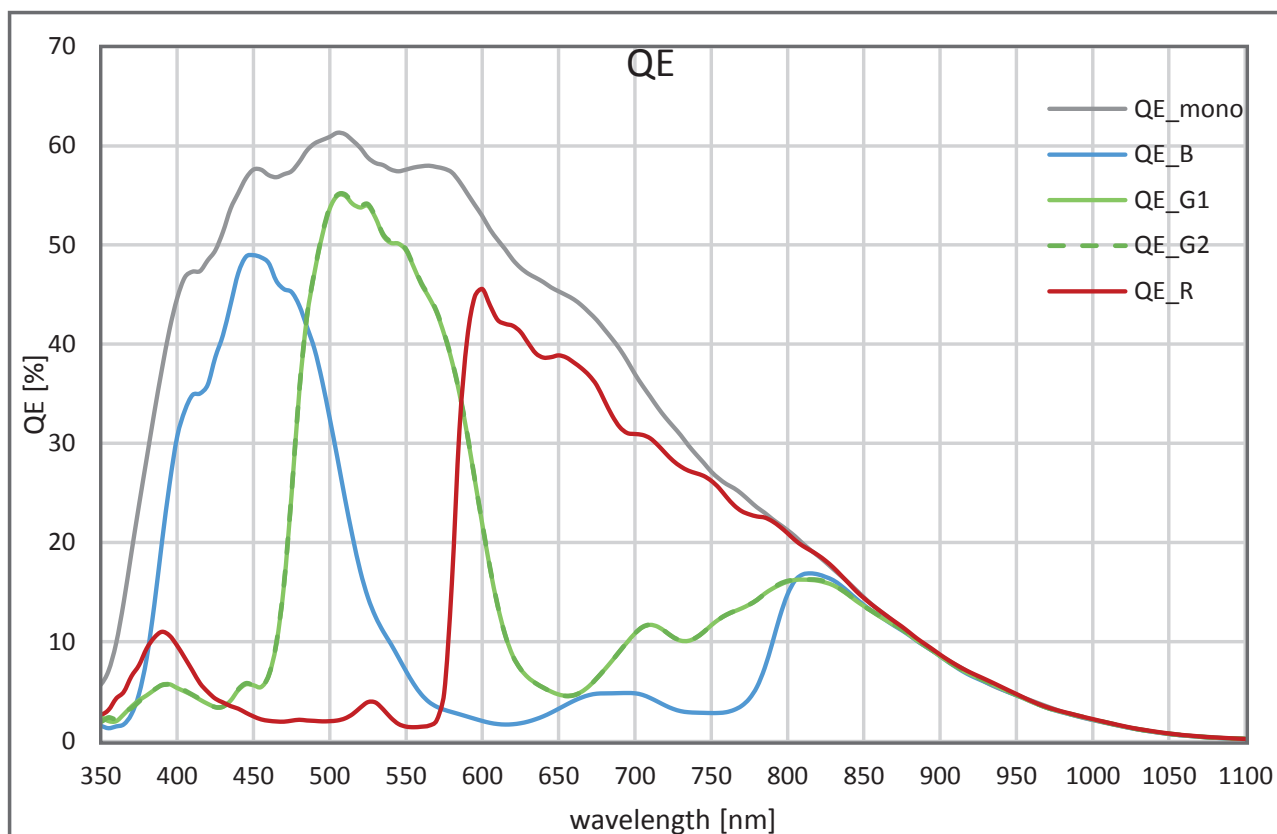
## Specifications

Model		VC-50MX-M/C 30		
Resolution (H × V)		7920 × 6004		
Sensor		AMS CMOSIS CMV 50000		
Sensor Size (Optical Diagonal)		35 mm (45.72 mm)		
Sensor Type		High Speed CMOS Image Sensor		
Pixel Size		4.6 μm × 4.6 μm		
Interface		CoaXPress		
Max. Frame Rate		1CH: 7.7 fps @ 6.25 Gbps	2CH: 15.5 fps @ 6.25 Gbps	4CH: 30.9 fps @ 6.25 Gbps
Exposure Time (1 μs step)		1 μs – 60 s		
Partial Scan (Max. Speed)		3968 fps at 4 Lines		
Pixel Data Format	Mono	Mono 8 / Mono 10 / Mono 12		
	Color	BG Bayer 8 / BG Bayer 10 / BG Bayer 12		
Electronic Shutter		Global Shutter		
Exposure Mode		Free-Run, Timed and Trigger Width		
Dynamic Range		64 dB		
Gain Control		1 × ~ 30 × (1/1024 step)		
Black Level Control		0 ~ 256 LSB at 12 bit (1 LSB step)		
Dimension / Weight		80 mm × 80 mm × 112 mm, 760 g		
Temperature		Operating: -5°C ~ 40°C, Storage: -40°C ~ 70°C		
Vibration / Shock		3G (20 ~ 200 Hz) XYZ / 10G 6 ms		
Lens Mount		F-mount, Custom mount available upon request		
Power	External	10 ~ 24 V DC, Typ. 12.0 W		
	PoCXP	24 V DC, Minimum of two PoCXP cables required		
Compliance		CE, FCC, KC		
API SDK		Viewworks Imaging Solution 7.X		

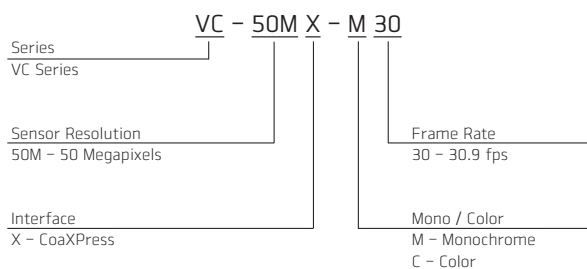
# VC-50MX

50 MEGAPIXEL CMOS DIGITAL CAMERA WITH COAXPRESS INTERFACE

## Quantum Efficiency Curves



## Ordering Scheme



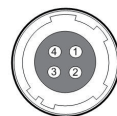
## Connector Specification

### Power



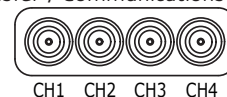
1 2 3: +12V DC, 4 5 6: GND  
(HR10A-7R-6PB)

### Control



1: Trigger IN+, 2: Trigger IN-  
3: Strobe Out-(GND), 4: Strobe OUT+  
(HR10A-7R-4S)

### Data Transfer / Communications



CH1: Master Connection  
(75  $\Omega$ , DIN 1.0/2.3)

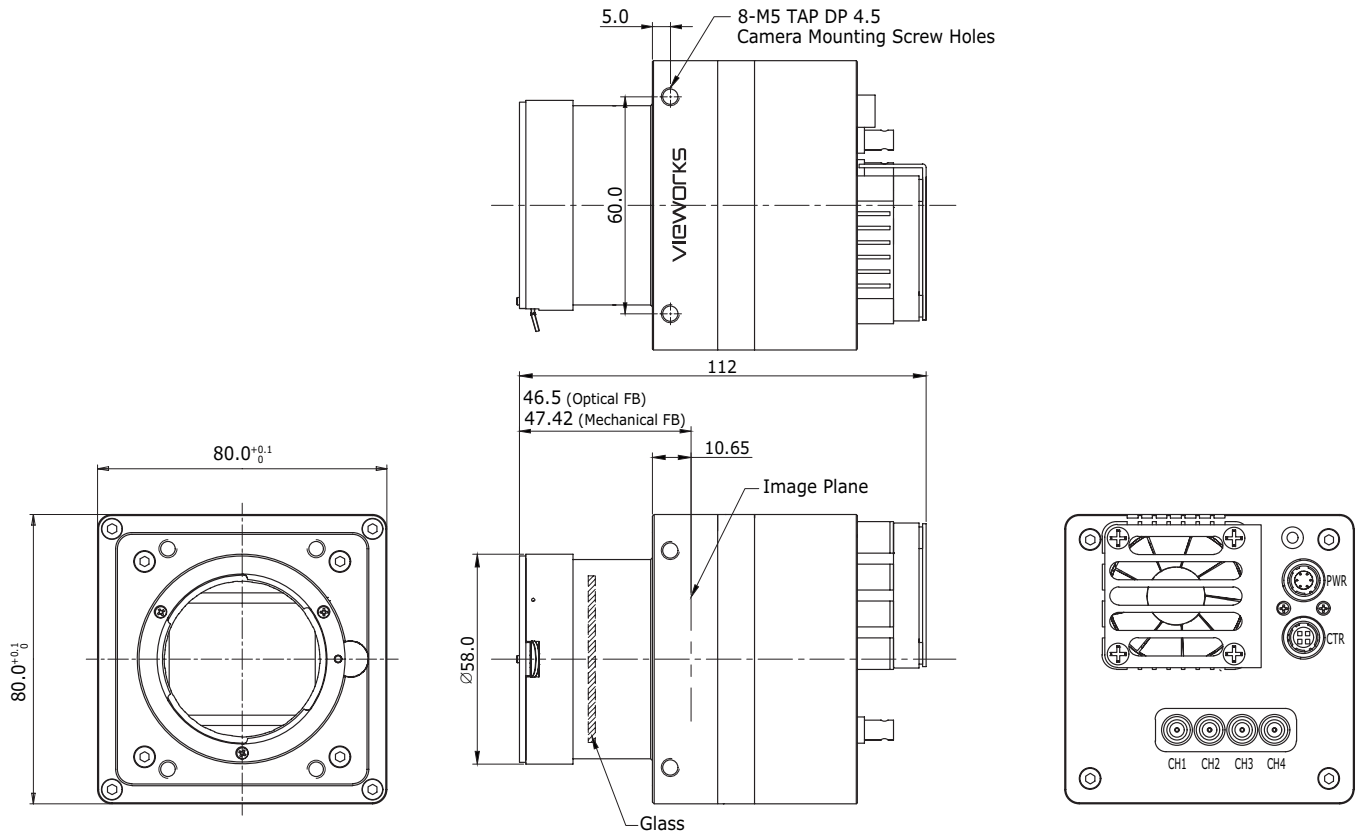
Connectors on camera body

# VC-50MX

50 MEGA PIXEL CMOS DIGITAL CAMERA WITH COAXPRESS INTERFACE

## Mechanical Dimensions

Unit: mm



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# VC-65MX-M/C 35 I VC-65MX-M/C 31 I

65 Megapixel High Speed CMOS Digital Camera



**CoaXPress®**

The VC-65MX-31 I and VC-65MX-35 I, the latest models of the industrial proven VC series, are new 65 megapixel CoaXPress cameras and based on the latest CMOS image sensor technology (GMAX3265) from Gpixel. The VC-65MX-31 I offers up to 31.6 frames per second at 9344 × 7000 resolution. For high speed applications, the VC-65MX-35 I offers up to 35.5 frames per second at 9344 × 7000 resolution.

Equipped with the Viewworks' innovative technologies proved by world's top FPD manufacturers, the VC-65MX cameras offer not only highly uniformed images but also high speed image processing capabilities. Featured with high quality image uniformity and high resolution, these cameras are ideal for demanding applications such as FPD, PCB and semiconductor inspections.

## VIEWWORKS

[www.viewworks.com](http://www.viewworks.com)

# VC-65MX-M/C 35 I / VC-65MX-M/C 31 I

65 Megapixel High Speed CMOS Digital Camera

## Main Features

- 65 Megapixel Resolution
- CoaXPress Interface up to 35.5 fps at 25 Gbps using 4 CH
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- Defective Pixel Correction
- Hot Pixel Correction
- GenICam Compatible – XML based Control

## Applications

- Flat Panel Display Inspection
- Electronics Inspection
- Semiconductor Inspection
- Document / Film Scanning

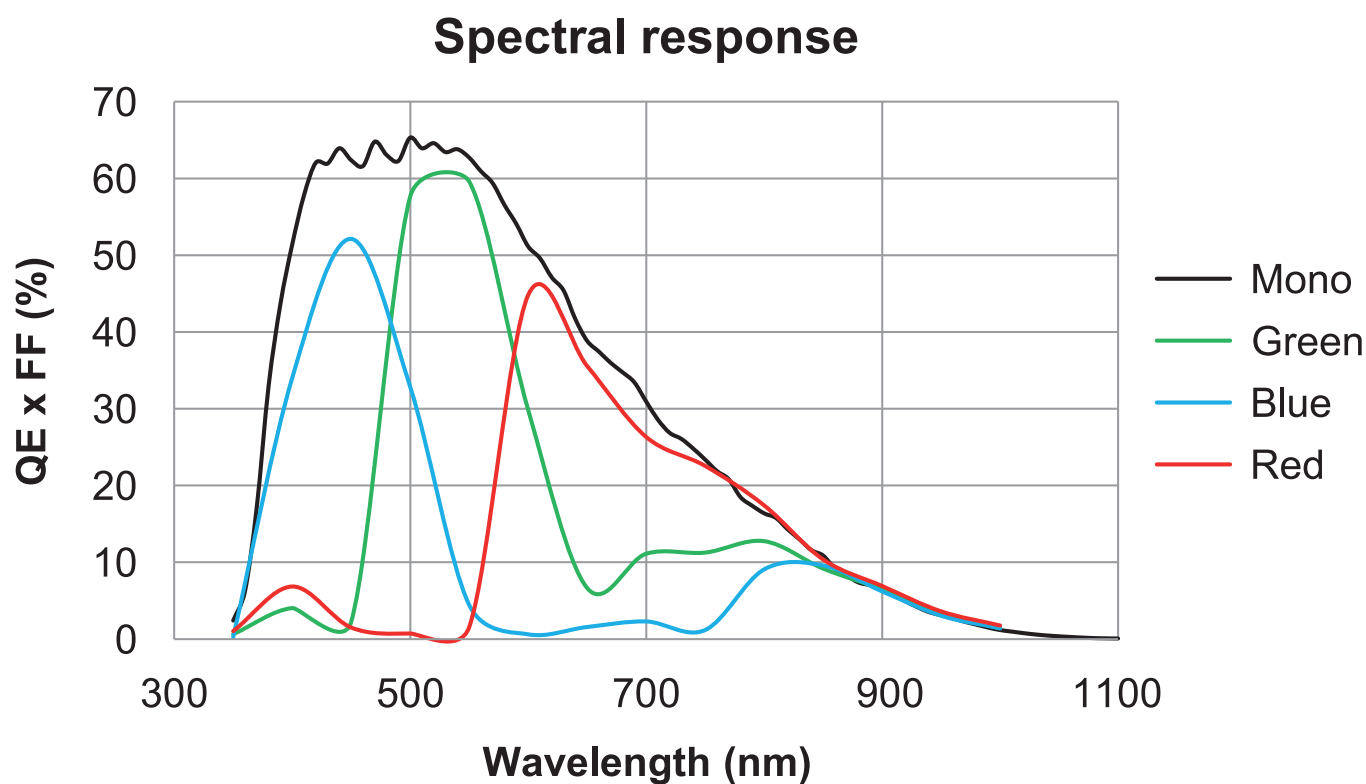
## Specifications

Model		VC-65MX-M/C 31 I	VC-65MX-M/C 35 I
Resolution (H × V)		9344 × 7000	
Sensor		Gpixel GMAX3265 – Normal Speed	Gpixel GMAX3265 – High Speed
Sensor Size (Diagonal)		29.9 mm × 22.4 mm (37.4 mm)	
Pixel Size		3.2 μm × 3.2 μm	
Interface		CoaXPress	
Max. Frame Rate		4 CH: 31.6 fps @ 8 bit	4 CH: 35.5 fps @ 8 bit
		4 CH: 27.3 fps @ 10 bit	4 CH: 27.5 fps @ 10 bit
		4 CH: 24.1 fps @ 12 bit	N/A @ 12 bit
		4 CH: 31.6 fps @ 8 bit (2×2 Binning)	4 CH: 71.1 fps @ 8 bit (2×2 Binning)
Exposure Time (1 μs step)		14 μs – 60 s	12 μs – 60 s
Partial Scan (Max. Speed)		6349.2 fps at 4 Lines	7142.8 fps at 4 Lines
Binning		2 × 2 Binning	
Pixel Data Format	Mono	Mono 8 / Mono 10 / Mono 12	Mono 8 / Mono 10
	Color	GB Bayer 8 / GB Bayer 10 / GB Bayer 12	GB Bayer 8 / GB Bayer 10
Electronic Shutter		Global Shutter	
Trigger Synchronization		Free-Run, Hardware Trigger, Software Trigger or CXP	
External Trigger		3.3 V ~ 24.0 V, 10 mA, Logical Level Input, Optically Isolated	
Software Trigger		Asynchronous, Programmable via Camera API	
Dynamic Range		66 dB @ 12 bit	62 dB @ 10 bit
Gain Control		1 × ~ 32 ×	
Black Level Control		0 ~ 255 LSB at 12 bit	0 ~ 63 LSB at 10 bit
Dimension / Weight		80 mm × 80 mm × 103 mm, 750 g (with F-mount)	
Temperature		Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C	
Lens Mount		F-mount, Custom mount available upon request	
Power	External	11 ~ 24 V DC	
	Dissipation	Typ. 13.5 W	Typ. 17.5 W
	PoCXP	24 V DC, Minimum of two PoCXP cables required	
Compliance		CE, FCC, KC	
API SDK		Viewworks Imaging Solution 7.X	

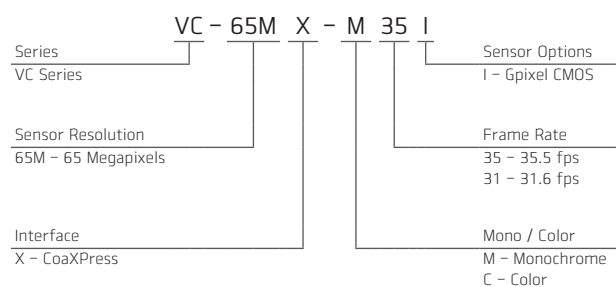
# VC-65MX-M/C 35 I / VC-65MX-M/C 31 I

65 Megapixel High Speed CMOS Digital Camera

## Spectral Response



## Ordering Scheme



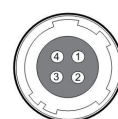
## Connector Specification

### Power



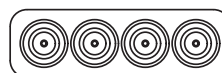
1, 2, 3: +12V DC  
4, 5, 6: GND  
(HR10A-7R-6PB)

### Control



1: Trigger IN+  
2: Trigger IN-  
3: Strobe Out-(GND)  
4: Strobe Out+  
(HR10A-7R-4S)

### Data Transfer / Communications



CH1: Master Connection  
75  $\Omega$ , DIN 1.0/2.3

CH1 CH2 CH3 CH4

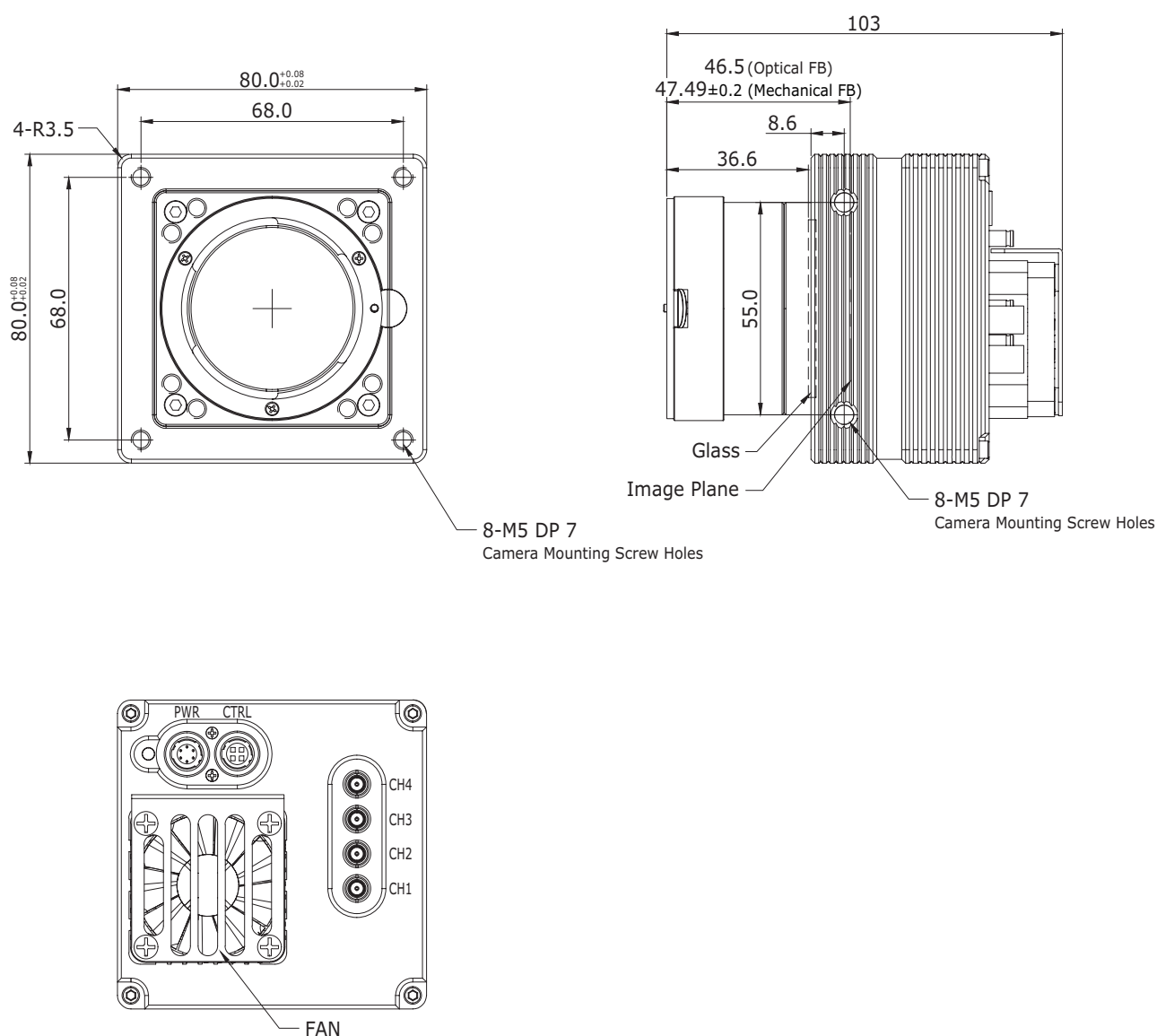
Connectors on camera body

# VC-65MX-M/C 35 I / VC-65MX-M/C 31 I

65 Megapixel High Speed CMOS Digital Camera

## Mechanical Dimensions

Unit: mm



---

# VC-71MC-M/C 4

71 MEGAPIXELS

ULTRA HIGH RESOLUTION CMOS DIGITAL CAMERA



The VC-71MC, the latest member of the industrial proven VC series, is a new 71 megapixel resolution CMOS camera with Camera Link interface. The VC-71MC uses the latest 71 megapixel CMOS imaging sensor (CHR 70M) technology from CMOSIS, and offers a frame rate of 4 fps at full resolution. Equipped with the Viewworks' innovative technologies proved by world's top FPD manufacturers, the VC-71MC camera offers not only highly uniformed images but also high speed image processing capabilities. Featured with high quality image uniformity and high resolution, this camera is ideal for demanding applications such as FPD, PCB, and semiconductor inspections.

**VIEWWORKS**

# VC-71MC-4

71 MEGAPIXELS – ULTRA HIGH RESOLUTION CMOS DIGITAL CAMERA

## Main Features

- \* 71 Megapixel Resolution
- \* Ultra High Resolution CMOS Imaging Sensor
- \* Camera Link Medium Interface up to 4.2 fps
- \* Rolling Shutter
- \* Flat Field Correction
- \* Pixel Defect Correction
- \* Non-uniformity Correction (DSNU and PRNU)
- \* Field Upgradable Firmware

## Applications

- \* FPD, Electronics and Semiconductor Inspection
- \* Research and Scientific Imaging
- \* Document / Film Scanning

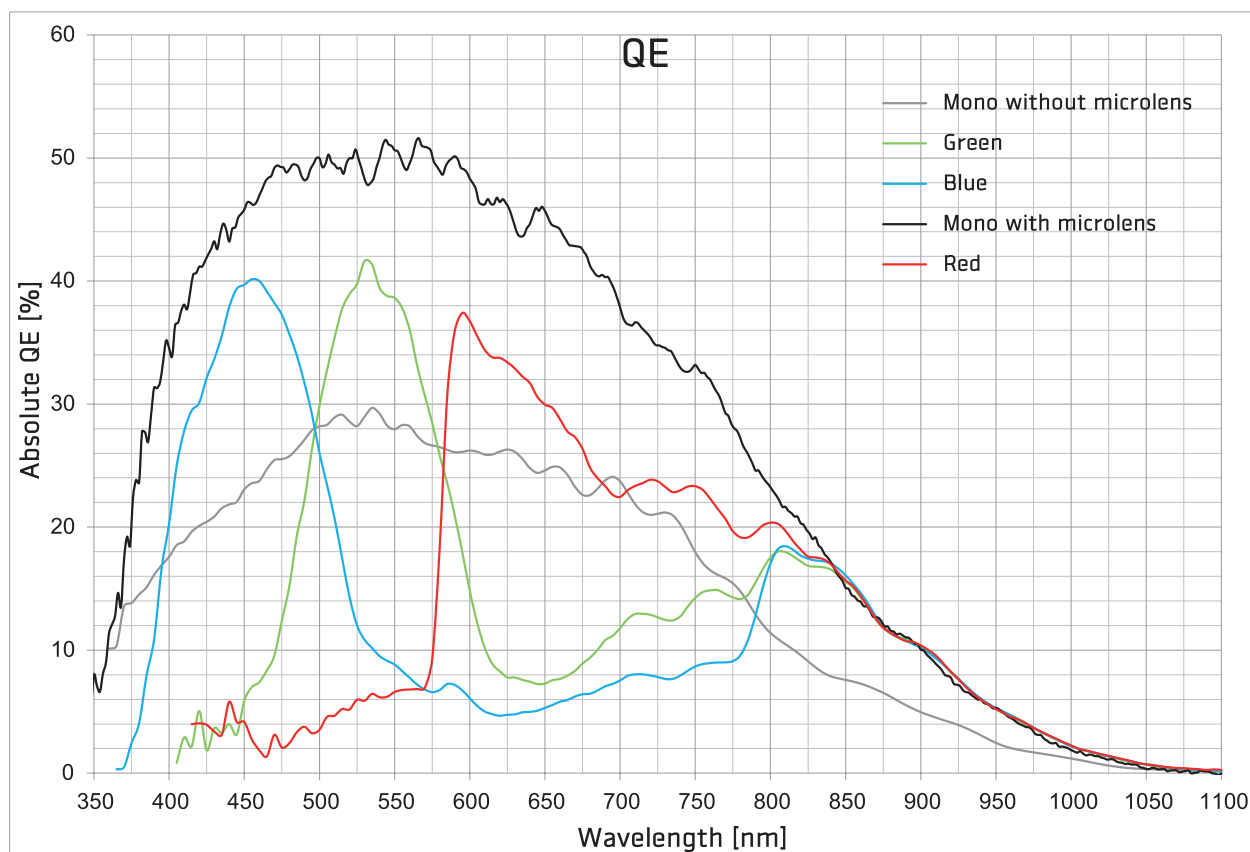
## Specifications

Model		VC-71MC-M/C 4
Resolution (H × V)		10000 × 7096
Sensor		CMOSIS CHR70M
Sensor Size (Optical Format)		31.00 mm × 22.00 mm (38 mm)
Sensor Type		High Resolution CMOS Imaging Sensor
Pixel Size		3.1 $\mu\text{m}$ × 3.1 $\mu\text{m}$
Interface	2 Tap	Camera Link Base
	4 Tap – Normal	Camera Link Medium
	4 Tap – High	
Max. Frame Rate		2.1 fps (CL Base)
		3.0 fps (CL Medium)
		4.2 fps (CL Medium / Overclocked)
Transfer Time		476 ms (CL Base)
		335 ms (CL Medium)
		238 ms (CL Medium / Overclocked)
Exposure Time		66 $\mu\text{s}$ ~ 7 s (1 line step)
Pixel Data Format		8 / 10 / 12 bit
Electronic Shutter		Rolling Shutter
Data Output	2 Tap	85 MHz
Pixel Clock Speed	4 Tap	
Trigger Mode		Free-Run, External Trigger
		Programmable Exposure Time and Trigger Polarity
Dynamic Range		63 dB
Dimension / Weight		68 mm × 68 mm × 103 mm, 420 g (F-mount)
Temperature		Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C
Lens Mount		F-mount, Custom mount available upon request
Power		10 ~ 38 V DC, Typ. 7.5 W
Compliance		CE, FCC, KC (in preparation)
Configuration Software		Configurator

# VC-71MC-4

71 MEGAPIXELS – ULTRA HIGH RESOLUTION CMOS DIGITAL CAMERA

## Quantum Efficiency Curves



## Ordering Scheme

VC - 71M C - M 4 E0	
Series VC Series	Sensor Options E0 - CMOSIS
Sensor Resolution 71M - 71 Megapixels	Frame Rate 4 - 4.2 fps
Interface C - Camera Link	Mono / Color M - Monochrome C - Color

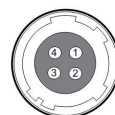
## Connector Specification

Power



1 2 3: +12V DC, 4 5 6: GND  
(HR10A-7R-6PB)

Control



1: Trigger IN+, 2: Trigger IN-  
3: DC Ground, 4: Strobe OUT+  
(HR10A-7R-4S)

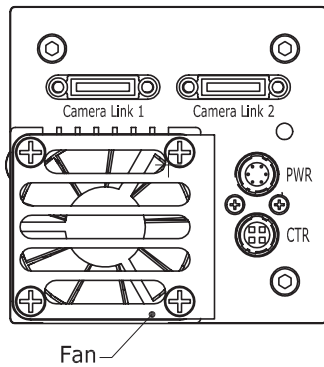
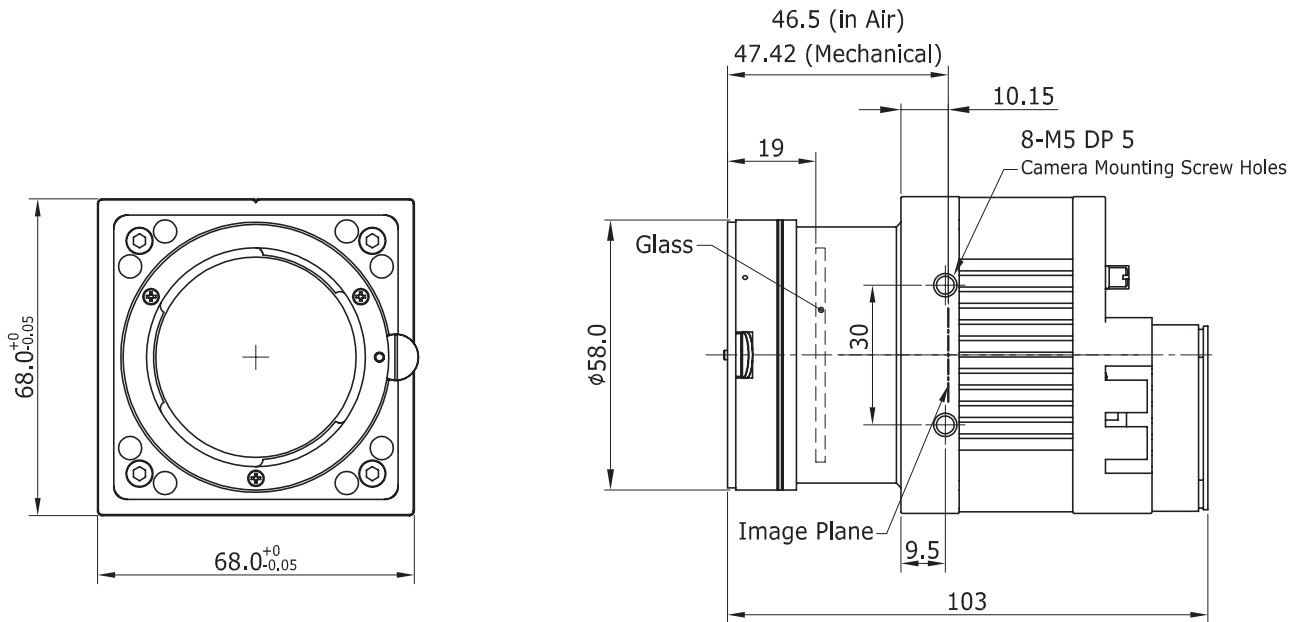
Connectors on camera body

# VC-71MC-4

71 MEGAPIXELS – ULTRA HIGH RESOLUTION CMOS DIGITAL CAMERA

## Mechanical Dimensions

Unit: mm



For more information please contact local distributor or visit our website at <http://www.vieworks.com>.

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VW40-15B-001

# VIEWWORKS

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tel +82-70-7011-6161 fax +82-31-386-8631 e-mail [sales@vieworks.com](mailto:sales@vieworks.com)

# VC-101MC-M/C 8 H VC-151MC-M/C 5 H

Ultra High Resolution CMOS Digital Camera



The VC-101MC and VC-151MC, the latest models of the industrial proven VC series, are 101 and 151 megapixel resolution CMOS cameras available with the Camera Link interface. These cameras are based on the latest CMOS image sensor technology (IMX461 and IMX411) from Sony Semiconductor Solutions Corporation. The VC-101MC-8 offers up to 8.1 frames per second at  $11648 \times 8742$  resolution. For even higher resolution applications, the VC-151MC-5 offers up to 5.5 frames per second at  $14192 \times 10640$  resolution. Equipped with the Viewworks' innovative technologies proved by world's top FPD manufacturers, the VC-101MC and VC-151MC cameras offer not only highly uniformed images but also high speed image processing capabilities. Featured with high quality image uniformity and high resolution, these cameras are ideal for demanding applications such as FPD, PCB and semiconductor inspections.

## VIEWWORKS

[www.viewworks.com](http://www.viewworks.com)

# VC-101MC-8 H / VC-151MC-5 H

Ultra High Resolution CMOS Digital Camera

## Main Features

- 101 or 151 Megapixel Resolution
- Camera Link Full Interface
- Electronic Rolling Shutter
- DSNU and PRNU Correction
- Flat Field Correction with Sequencer Control
- Hot Pixel Correction
- Dynamic Defective Pixel Correction
- 4 Gb Frame Buffer for Burst Readout Mode

## Applications

- Flat Panel Display Inspection
- Electronics Inspection
- Semiconductor Inspection
- Document / Film Scanning

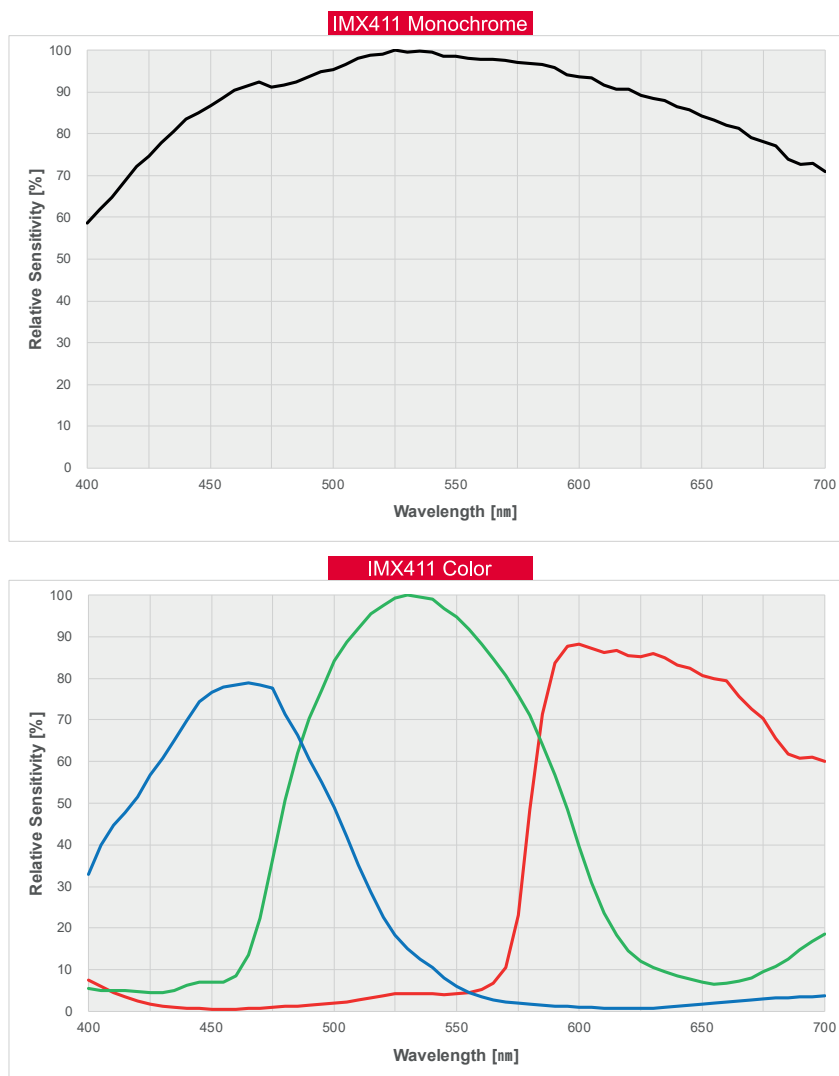
## Specifications

Model		VC-101MC-M/C 8 H	VC-151MC-M/C 5 H
Resolution (H × V)		11648 × 8742	14192 × 10640
Sensor		SONY IMX461	SONY IMX411
Sensor Size (Diagonal)		43.80 mm × 32.87 mm (55 mm)	53.36 mm × 40.01 mm (66.7 mm)
Pixel Size		3.76 μm × 3.76 μm	3.76 μm × 3.76 μm
Interface		Camera Link Base / Medium / Full / 10 Tap, 26-pin SDR Connector	
Max. Frame Rate		8.1 fps (with Overlapped Acquisition)	5.5 fps (with Overlapped Acquisition)
Camera Image Memory		4 Gb	
Exposure Time (1 μs step)		1 μs – 60 s	
Pixel Data Format		8 / 10 / 12 bit	
Data Output Pixel Clock Speed		85 MHz / 65 MHz	
Electronic Shutter		Rolling Shutter	
Trigger Synchronization	Overlapped Acquisition	Free-Run	
	Non-overlapped Acquisition	Hardware Trigger or CC1	
Dynamic Range		78 dB	
Gain Control		1 × ~ 32 ×	
Black Level Control		0 ~ 255 LSB at 12 bit	
Dimension / Weight		90 mm × 90 mm × 92.5 mm, 800 g (with M-72 mount)	100 mm × 100 mm × 92.5 mm, 1070 g (with M-72 mount)
Temperature		Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C	
Lens Mount		M72-mount, Custom mount available upon request	
Power	External	11 ~ 24 V DC	
	Dissipation	Typ. 15.5 W	
Compliance		CE, FCC, KC	
API SDK		Viewworks Imaging Solution 7.X	

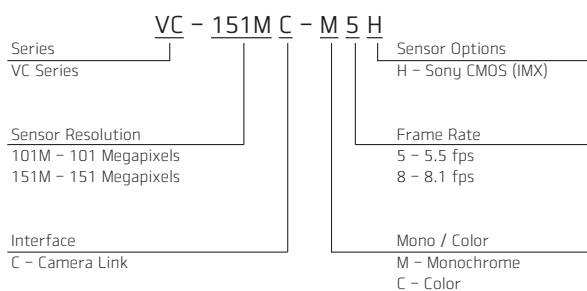
# VC-101MC-8 H / VC-151MC-5 H

Ultra High Resolution CMOS Digital Camera

## Relative Sensitivity Curves

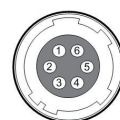


## Ordering Scheme



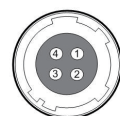
## Connector Specification

Power



1, 2, 3: +12V DC  
(HR10A-7R-6PB) 4, 5, 6: GND

Control



1: Trigger IN+ 2: Trigger IN-  
3: Strobe Out-(GND) 4: Strobe OUT+  
(HR10A-7R-4S)

Connectors on camera body

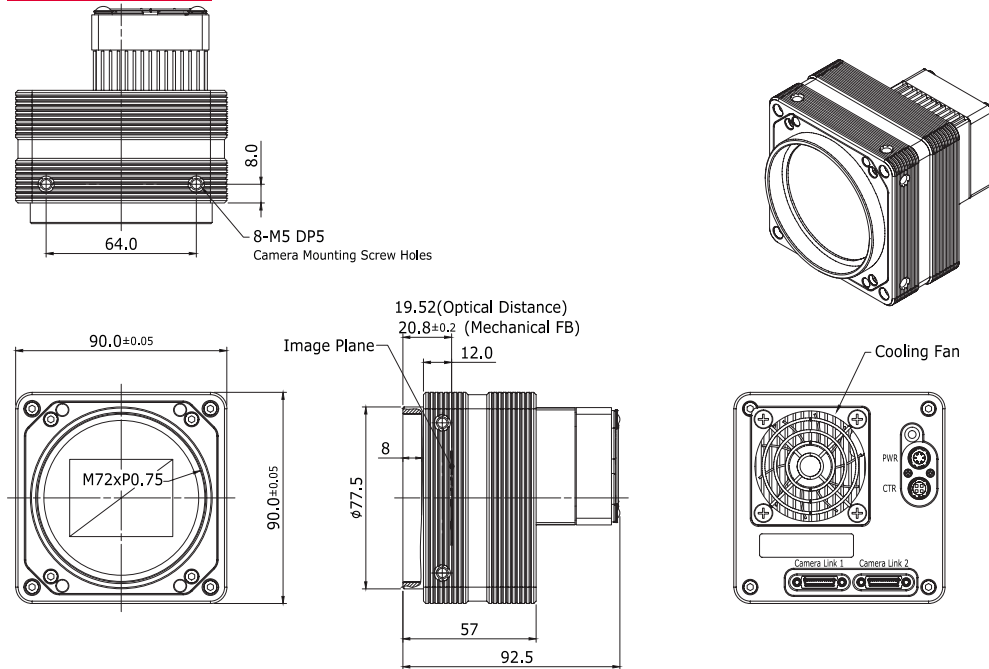
# VC-101MC-8 H / VC-151MC-5 H

Ultra High Resolution CMOS Digital Camera

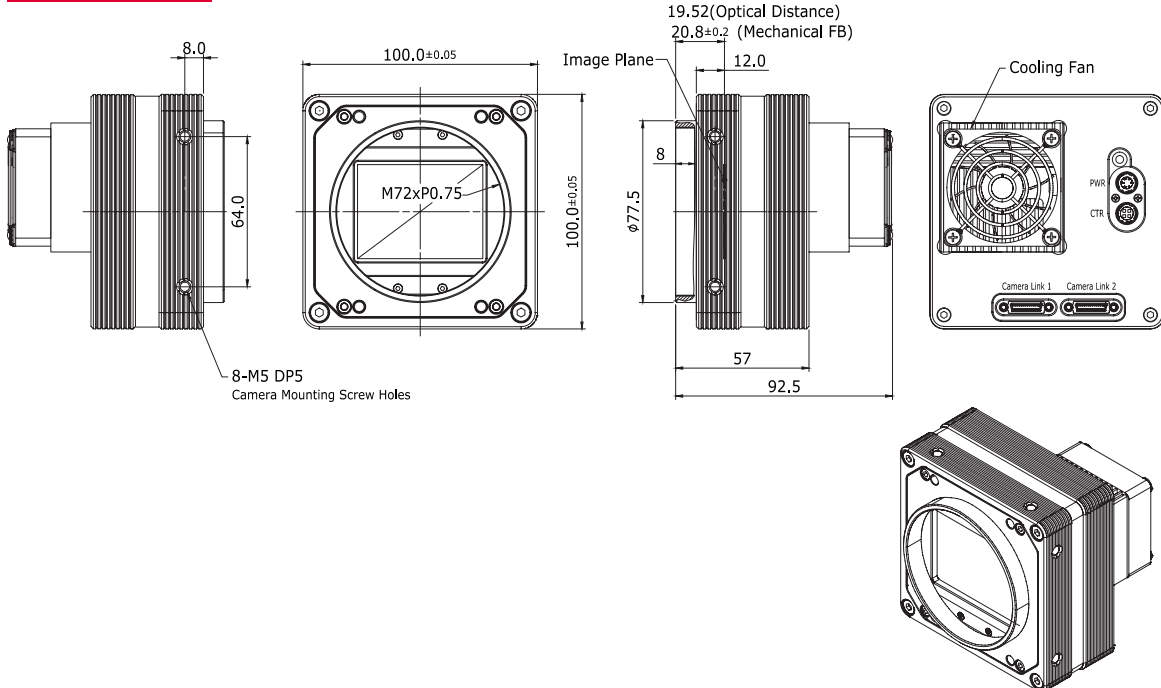
## Mechanical Dimensions

Unit: mm

### VC-101MC-M/C 8 H



### VC-151MC-M/C 5 H



# VC-101MX-M/C 9 H VC-151MX-M/C 6 H

Ultra High Resolution CMOS Digital Camera



The VC-101MX and VC-151MX, the latest models of the industrial proven VC series, are new 101 and 151 megapixel CoaXPress cameras and based on the latest CMOS image sensor technology (IMX461 and IMX411) from Sony Semiconductor Solutions Corporation. The VC-101MX-9 offers up to 8.7 frames per second at  $11648 \times 8742$  resolution. For even higher resolution applications, the VC-151MX-6 offers up to 6.2 frames per second at  $14192 \times 10640$  resolution. Equipped with the Vieworks' innovative technologies proved by world's top FPD manufacturers, the VC-101MX and VC-151MX cameras offer not only highly uniformed images but also high speed image processing capabilities. Featured with high quality image uniformity and high resolution, these cameras are ideal for demanding applications such as FPD, PCB and semiconductor inspections.

## VIEWWORKS

[www.vieworks.com](http://www.vieworks.com)

# VC-101MX-9 H / VC-151MX-6 H

Ultra High Resolution CMOS Digital Camera

## Main Features

- 101 or 151 Megapixel Resolution
- CoaXPress Interface
- Electronic Rolling Shutter
- DSNU and PRNU Correction
- Flat Field Correction with Sequencer Control
- Hot Pixel Correction
- Dynamic Defective Pixel Correction

## Applications

- Flat Panel Display Inspection
- Electronics Inspection
- Semiconductor Inspection
- Document / Film Scanning

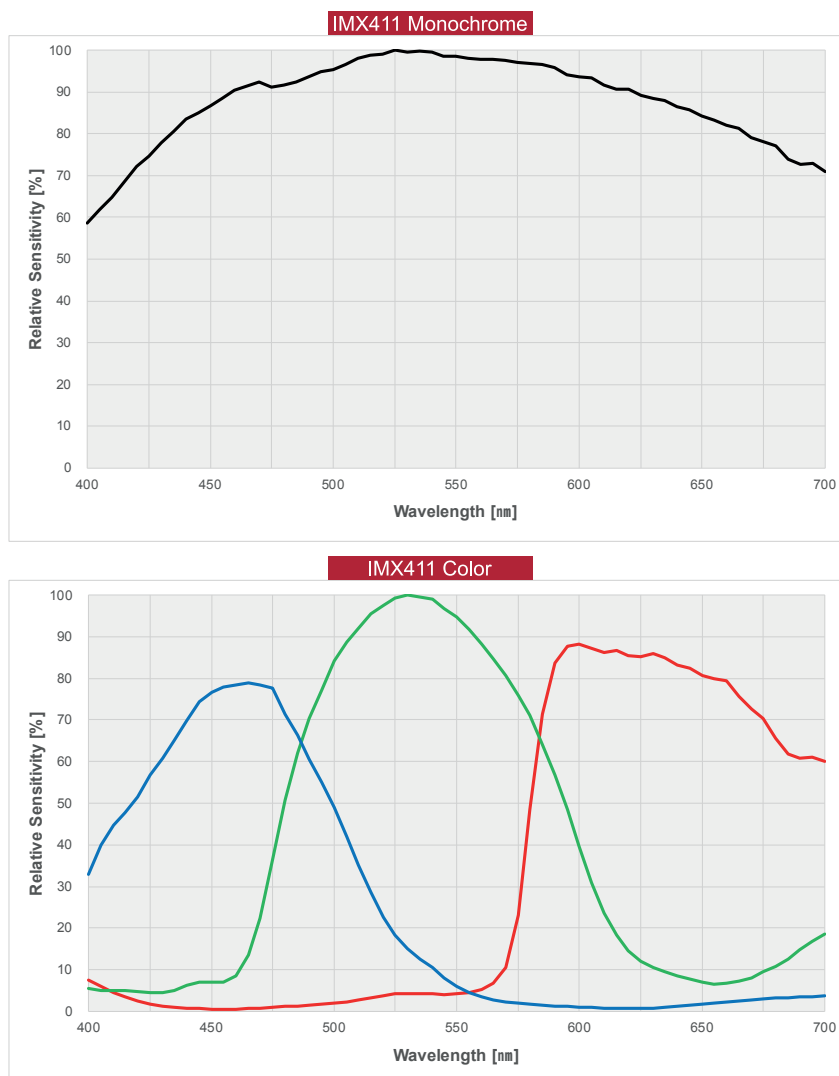
## Specifications

Model		VC-101MX-M/C 9 H	VC-151MX-M/C 6 H
Resolution (H × V)		11648 × 8742	14192 × 10640
Sensor		SONY IMX461	SONY IMX411
Sensor Size (Diagonal)		43.80 mm × 32.87 mm (55 mm)	53.36 mm × 40.01 mm (66.7 mm)
Pixel Size		3.76 μm × 3.76 μm	3.76 μm × 3.76 μm
Interface		CoaXPress	
Max. Frame Rate		8.7 fps (with Overlapped Acquisition)	6.2 fps (with Overlapped Acquisition)
Exposure Time (1 μs step)		1 μs ~ 60 s	
Pixel Data Format		8 / 10 / 12 bit	
Electronic Shutter		Rolling Shutter	
Trigger Synchronization	Overlapped Acquisition	Free-Run	
	Non-overlapped Acquisition	Hardware Trigger, Software Trigger or CXP	
Dynamic Range		78 dB	
Gain Control		1 × ~ 32 ×	
Black Level Control		0 ~ 255 LSB at 12 bit	
Dimension / Weight		90 mm × 90 mm × 92.5 mm, 800 g (with M-72 mount)	100 mm × 100 mm × 92.5 mm, 1070 g (with M-72 mount)
Temperature		Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C	
Software Trigger		Asynchronous, Programmable via Camera API	
Lens Mount		M72-mount, Custom mount available upon request	
Power	External	11 ~ 24 V DC	
	Dissipation	Typ. 15.5 W	
Compliance		CE, FCC, KC	
API SDK		Viewworks Imaging Solution 7.X	

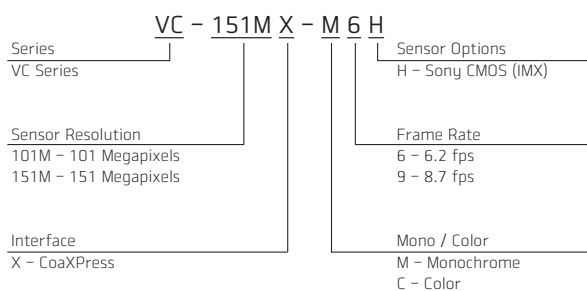
# VC-101MX-9 H / VC-151MX-6 H

Ultra High Resolution CMOS Digital Camera

## Relative Sensitivity Curves

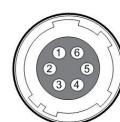


## Ordering Scheme



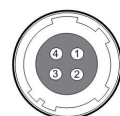
## Connector Specification

### Power



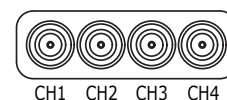
1, 2, 3: +12V DC  
(HR10A-7R-6PB) 4, 5, 6: GND

### Control



1: Trigger IN+ 2: Trigger IN-  
3: Strobe Out-(GND) 4: Strobe OUT+  
(HR10A-7R-4S)

### Data Transfer / Communications



CH1: Master Connection  
(75  $\Omega$ , DIN 1.0/2.3)

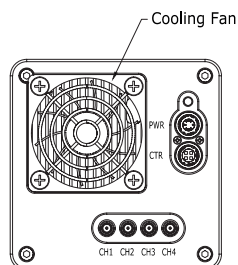
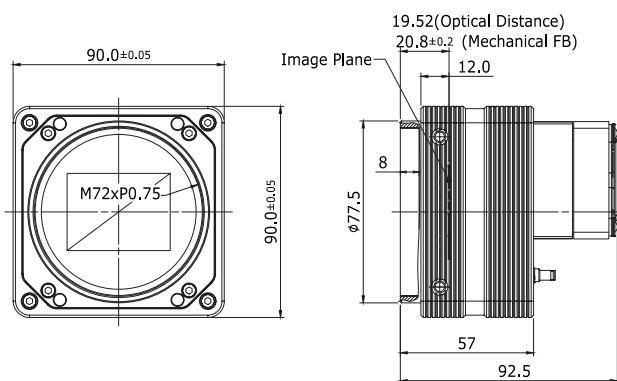
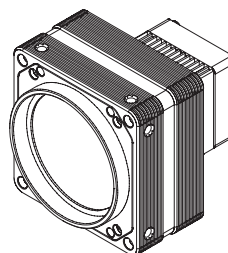
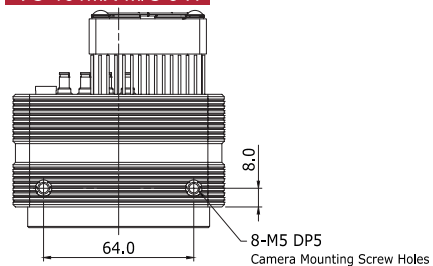
Connectors on camera body

# Ultra High Resolution CMOS Digital Camera

## Mechanical Dimensions

Unit: mm

VC-101MX-M/C 9 H



VC-151MX-M/C 6 H

